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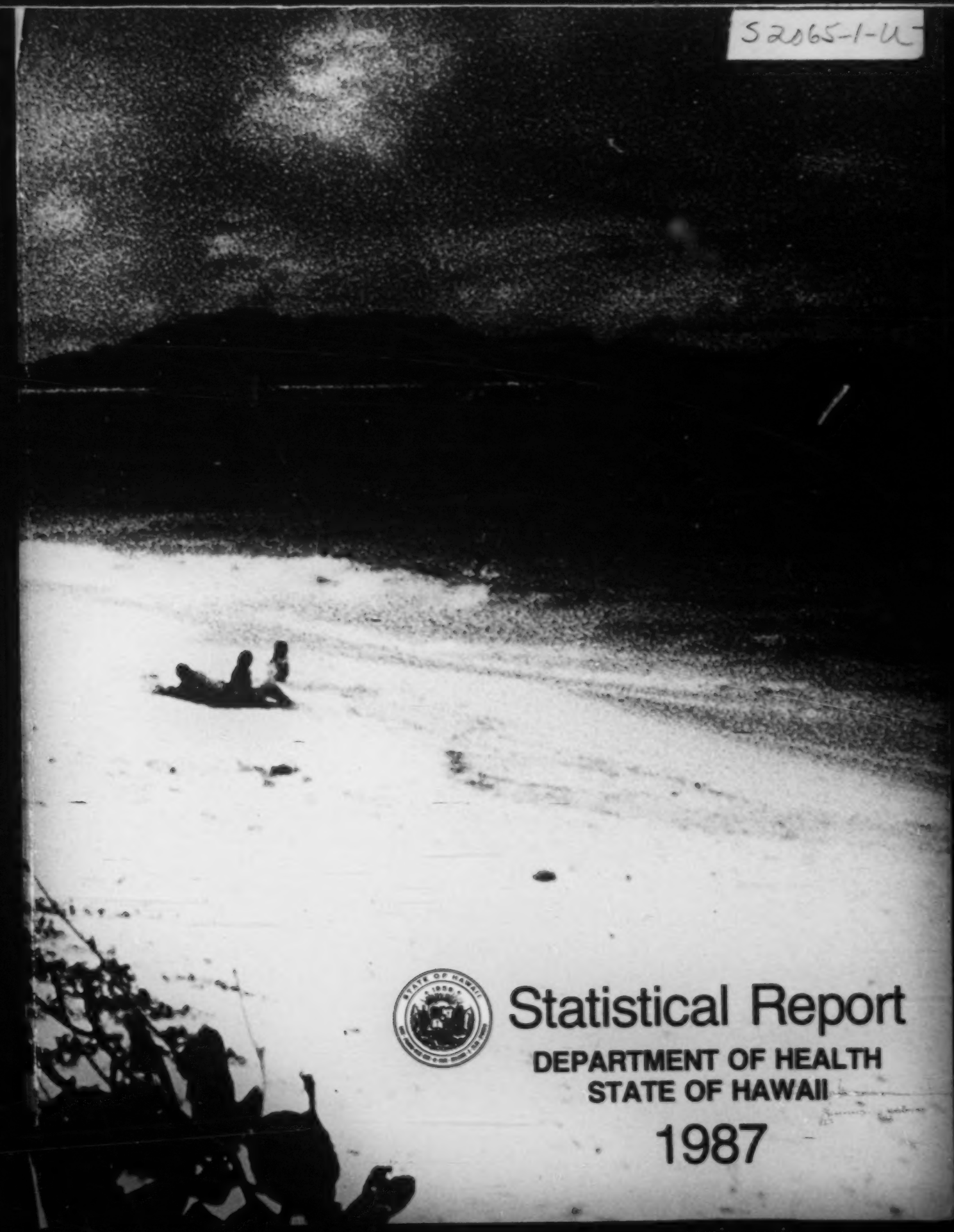

Statistical Report

DEPARTMENT OF HEALTH
STATE OF HAWAII

1987

STATISTICAL SUPPLEMENT

DEPARTMENT OF HEALTH

STATE OF HAWAII

This is the statistical supplement to the narrative report published in a separate volume.

Anyone needing additional information may write directly to the program concerned.

1987*

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Cover photo by George H. Tokuyama, State Registrar
View from Waimanalo Beach Park, Island of Oahu, Hawaii

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*Unless otherwise stated, data included in this report are for the calendar year 1987. Publication date, November 1988.

	Page
Administrative Staff	iv
Research and Statistics Office	
Vital Statistics	
Summary	2
Population	7
Figure 1, Births Occurring in Hawaii, 1900-1986	8
Live Births	8
Illegitimate Live Births	19
Figure 2, Deaths Occurring in Hawaii, 1900-1986	21
Deaths	22
Figure 3, Infant Deaths Occurring in Hawaii, 1900-1986	44
Infant Deaths	45
Standard Fetal Deaths	47
Elective Abortions	50
Marriages	53
Divorces and Annulments	63
Hawaii Tumor Registry	67
Health Surveillance Program (Will be published separately.)	
Health Promotion and Education Office	71
Hawaii State Health Planning and Development Agency	80
Family Health Services Division	
Summary	88
Maternal and Child Health Branch	93
Children With Special Health Needs Branch	94
School Health Branch	97
Communicable Disease Division	
Epidemiology Branch	103
Hansen's Disease Community Program	108
Tuberculosis Branch	115
Dental Health Division	121
Environmental Protection and Health Services Division	
Pollution Investigation and Enforcement Branch	124
Wastewater Treatment Works Construction Grants Branch	127
Environmental Permits Branch	129
Sanitation Branch	131
Vector Control Branch	145
Litter Control Program	151
Hazardous Waste Program	154
Medical Health Services Division	
Chronic Disease Branch	156
Emergency Medical Services Branch	160
Laboratories Branch	161
Public Health Nursing Branch	168
Nutrition Branch	176
Hospital and Medical Facilities Branch	180
Mental Health Division	184
Refugee Screening Project	195
Waimano Training School and Hospital Division	198

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RESEARCH AND STATISTICS OFFICE

VITAL STATISTICS SUMMARY, 1987

RESIDENT MID-YEAR POPULATION

The resident mid-year population of the state of Hawaii increased 1.7 percent from the revised 1986 figure of 1,064,732 to the 1987 total of 1,082,502. The 1987 total was 10.8 percent above the April 1, 1980 census count of 964,691.

Kauai and Maui counties both showed gains of 2.9 percent between 1986 and 1987, followed by Hawaii County with an increase of 2.8 percent. The growth rate for the same one year period was 1.5 percent for Honolulu County.

LIVE BIRTHS

Total live births recorded for the calendar year 1987 for the state was 18,690, an increase of 1.9 percent above the 18,341 total for 1986. The trend in live births recorded has been leveling off after reaching a high of 19,164 in 1983.

The number of resident live births for the state totaled 18,555, giving a crude live birth rate of 17.1 per 1,000 population. The crude live birth rate was 17.2 for 1986 and 17.3 for 1985. The crude live birth rate for 1987 was 16.6 for Hawaii County, 17.1 for Honolulu County, 18.1 for Kauai County, and 17.9 for Maui County. The comparable 1986 rates were 16.3, 17.2, 17.7, and 17.8 respectively. The 1987 crude live birth rate for the United States was 15.6 per 1,000 population.

The total number of births occurring in the resident military community for 1987 was 3,917 as compared with 3,923 for 1986. The crude live birth rate was 31.9 for 1987 and 31.6 for 1986.

The number of births occurring in the resident civilian community was 14,589 in 1987 and 14,330 in 1986. The crude live birth rate was 15.2 per 1,000 resident civilian population for 1987 and 15.3 for 1986.

A total of 76.3 percent of 18,555 resident births occurred in Honolulu County.

Based on the race of the child, 5,735 live births, or 29.3 percent, were assigned to the part-Hawaiian group. Other leading contributors were the Caucasian group, 4,365 births (23.5%); Filipino group, 2,892 births (15.6%); and the Japanese group, 2,316 births (12.5%).

MULTIPLE LIVE BIRTHS

A total of 329 live multiple births were recorded for 1987 as compared to 366 for 1986.

There were 157 sets of live born twins counted for 1987. In addition there were six sets of twins where one of the twin was born dead.

There were three sets of triplets for 1987 as compared to two for 1986.

LOW BIRTHWEIGHT BIRTHS

The low birthweight ratio for 1987 was 6.4 percent based on 1,160 babies weighing under 2,500 grams out of 18,235 single live births recorded. The ratio was 6.1 percent for 1986 and 5.9 percent in 1985. The low birthweight ratio for the nation was 6.8 for 1985.

The median birth weight of single live births for 1987 was 3,304 grams or 7 pounds 5 ounces.

ATTENDANT AT BIRTH

A total of 241 out of the 18,690 births occurring in the state in 1987, or 1.3 percent, was delivered outside of a hospital or in large and small dispensaries. However, of the 241 births which occurred mostly at home, 11 were delivered by a physician or an osteopath, 13 by a midwife and five by a naturopath.

MONTH OF PRENATAL VISIT

First trimester visits by mothers totaled 73.9 percent for 1987 as compared to 76.4 percent in 1986. Another 17.0 percent of all mothers first visited their physician during the second trimester. The comparable figure for 1986 was 17.3 percent. A total of 839 mothers, or 4.6 percent, visited their physician during the third trimester.

A total of 146 mothers (.5 of 1 percent) had no medical care during their pregnancy.

MEDIAN AGE OF PARENTS

The median age of parents of babies born in 1987 was 26 years for mothers and 29 years for fathers.

SEX RATIO OF LIVE BIRTHS

The sex ratio or the ratio of male to female live births was 107.6 for 1987 as compared to 105.7 for 1986.

The sex ratio ranged from 101.8 for the Samoan group to 110.6 for the part-Hawaiian group for ethnic groups with more than 200 births.

CONGENITAL MALFORMATION

Of the 18,555 resident births, 255 or 1.4 percent, were reported to have one or more congenital malformations observed at birth.

The leading malformations include malformations of the bones and joints (37), circulatory system (18), multiple anomalies (12), and malformations of the genitourinary system (11).

Among the more commonly known malformations, there were 7 cases of clubfoot, 5 cases of Down's disease, 2 cases of hydrocephalus, 2 cases of spina bifida.

APGAR SCORE

The Agpar score is a useful measure of the need for resuscitation and a pedictor of the infant's chances of surviving the first year of life. It is a summary measure of the infant's condition based on heart rate, respiratory effort, muscle tone reflex, irritability and color.

For the state as a whole in 1987, 25.7 percent of the one minute agpar scores were classified as 9 or 10 on a scale from 0 to 10.

The comparable 5 minute agpar scores for the country as a whole for 1985 were 86.2 percent for 9 and 10 categories combined and 2.4 percent for the 0-3 categories combined. For the one minute agpar score, the national scores were 41.1 percent for the 9 and 10 categories combined and 0.6 percent for the 0-3 categories combined.

ILLEGITIMATE BIRTHS

The illegitimate birth ratio for the state continued its upward trend in 1987 reaching a high of 213.4 per 1,000 live births. The 1987 ratio was 4.5 percent above the 1986 ratio of 204.2 per 1,000 live births.

The highest illegitimate birth ratio for 1987 was observed in Hawaii County where the ratio was 313.8 per 1,000 live births. Maui County's ratio of 260.1 and Kauai County's ratio of 233.5 were well above the state ratio while the Honolulu County ratio of 193.8 was below that of the state.

The part-Hawaiian group continued to register the highest illegitimate birth ratio (37.6 percent). Other ethnic groups with above average ratio included the Filipino group (19.2 percent). Ethnic groups with illegitimate birth ratios below the state ratio included the Chinese (6.6 percent), the Koreans (4.4 percent), the Japanese (8.4 percent), and the Caucasians (11.2 percent).

DEATHS

Total deaths occurring in the state reached a high of 6,490 for the year 1987 as compared to 6,171 deaths for 1986, an increase of 5.2 percent.

Resident deaths for 1987 was 6,147, an increase of 6.2 percent over the 5,788 recorded for 1986. The resident crude death rate was 5.7 per 1,000 population for 1987 and 5.4 for 1986. The crude death rate for the nation as a whole was 8.7 for 1987 and 8.6 for 1986.

The crude death rate was 6.8 per 1,000 resident population for the County of Hawaii, 6.4 for the County of Kauai, 5.8 for the County of Maui, and 5.4 for the County of Honolulu.

RESIDENT INFANT DEATHS

The resident infant death rate for the state of Hawaii was 8.8 per 1,000 live births for 1987, a drop of 4.3 percent from the 1986 rate of 9.2.

There were 164 resident infant deaths in 1987, 168 in 1986, and 159 in 1985.

The infant death rate for 1987 for the United States was 10.0 per 1,000 live births.

Honolulu County continued to have the highest infant death rate in 1987 with a rate of 9.5 per 1,000 live births. Counties with infant death rates below that of the state were Hawaii County (7.8 per 1,000 live births), Maui County (6.8), and Kauai County (4.6).

The infant death rate for Hilo City was a remarkably low 1.7 per 1,000 live births (one infant death out of 1,287 live births).

Among the major ethnic groups, based on the race of the mother, the highest infant death rate was found in the part-Hawaiian group (9.6 per 1,000 live births), followed by the Caucasian group (8.0), Japanese group (6.6) and the Filipino group (5.4). Among the smaller ethnic groups, higher infant deaths were noted in the Samoan and Negro groups.

PERINATAL MORTALITY RATE

The 1987 resident perinatal mortality rate (resident infant deaths under 7 days plus resident fetal deaths of 20 weeks or more gestation divided by perinatal events -- the sum of standard fetal deaths of 20 weeks or more gestation plus all resident live births) for the state was 11.0 per 1,000 perinatal events. The 1986 rate was 14.5 per 1,000 live perinatal events. The percent drop in this rate was due to a sizeable reduction in the number of infant deaths under 7 days of age and a reduction in the number of fetal deaths in the 20-27 week and 36-39 week gestation categories.

The geographic areas with perinatal mortality rate below the state rate of 8.8 per 1,000 perinatal events include Kauai County (4.6), Maui County (6.8) and Hawaii County (7.8).

MATERNAL DEATHS

There was one maternal death during the January 1987 resulting a maternal death rate of 0.5 per 10,000 live births. The figures were identified to those of 1986.

LEADING CAUSES OF DEATH

Diseases of the Heart (ICD-9 rubrics 390-398, 402, 404, 410-429) with a cause specific rate of 185.9 per 100,000 population, Malignant Neoplasms (ICD-9 rubrics 140-208) with a rate of 130.8, and Cerebrovascular Diseases (ICD-9 rubrics 430-438) with a rate of 41.7, continued to be the first three leading causes of deaths for 1987. These three categories accounted for 63.0 percent of all resident deaths in the state.

All Accidents (ICD-9 codes E800-E949) with a rate of 24.4 per 100,000 population, Influenza and Pneumonia (ICD-9 codes 480-487) with a rate of 20.6, and Diabetes Mellitus (ICD-9 code 250) with a death rate of 16.4 were the next three leading causes of death.

Suicides (ICD-9 codes E950-E959) with a rate of 11.4, Other Circulatory Diseases (ICD-9 codes 441-459) with a rate of 8.7, Liver Diseases and Cirrhosis (ICD-9 code 571) with a rate of 7.7, and Bronchitis, Emphysema and Asthma (ICD-9 codes 490-493) with a rate of 6.3 filled the 7 to 10 ranks respectively.

Perinatal Conditions (ICD-9 codes 760-779) with a rate of 6.2 fell from 8th place in 1986 to 11th place in 1987.

STANDARD FETAL DEATHS

The resident standard fetal death ratio (spontaneous abortions) was 72.1 per 1,000 live births for the state in 1987 as compared to 77.3 in 1986. The ratios were based on 1,338 resident fetal deaths reported in 1987 and 1,441 in 1986.

High fetal death ratios were found among the Japanese group (76.5 per 1,000 live births) and the Caucasian group (75.1).

The standard fetal death ratio was above the ratio for Hawaii County (79.4 per 1,000 live births), Kauai County (96.0), and Maui County (94.1).

ELECTIVE INDUCED ABORTIONS

The resident elective induced abortion ratio for the state was 319.3 per 1,000 live births in 1987, 4.2 percent above the 1986 ratio of 306.3. The number of these vital events totaled 5,924 in 1987 and 5,647 in 1986.

The highest abortion activity was observed in Honolulu County where the ratio was 349.2 per 1,000 live births. Slightly over 82 percent of the 5,924 resident abortions for 1987 were performed in this county. The ratios for the other counties were 169.2 per 1,000 live births for Hawaii County, 213.9 for Kauai County and 291.6 for Maui County.

The median age of women having an elective induced abortion was 22.1 years in 1987, 24.4 in 1986, and 24.2 in 1985.

TABLE 1

ESTIMATED POPULATION BY RESIDENCE AND MILITARY STATUS
State of Hawaii 1970, 1980 and 1987

	Resident Population				
	Total		Armed Forces[1]	Civilian[2]	
APRIL 1, 1970 (U.S. CENSUS)	Number	Percent	Number	Number	Percent
State Total	769,913	100.0	55,142	714,771	100.0
City & County of Honolulu	630,528	81.9	54,809	575,719	80.5
Hawaii County	63,468	8.2	140	63,328	8.9
Kauai County	29,761	3.9	134	29,627	4.1
Kauai Island	29,524	3.8	134	29,390	4.1
Niihau Island	237	0.0	-	237	0.0
Maui County[3]	46,156	6.0	59	46,097	6.5
Lanai Island	2,204	0.3	-	2,204	0.3
Maui Island	38,691	5.0	59	38,632	5.4
Molokai Island[3]	5,261	0.7	-	5,261	0.8
APRIL 1, 1980 (U.S. CENSUS)					
State Total	964,691	100.0	57,056	907,635	100.0
City & County of Honolulu	762,565	79.1	56,726	705,839	77.7
Hawaii County	92,053	9.5	152	91,901	10.2
Kauai County	39,082	4.0	153	38,929	4.3
Maui County[3]	70,991	7.4	25	70,966	7.8
Lanai Island	2,119	0.2	-	2,119	0.2
Maui Island	62,823	6.5	25	62,798	6.9
Molokai Island[3]	6,049	0.6	-	6,049	0.7

	REVISED POPULATION JULY 1, 1986		PROVISIONAL POPULATION JULY 1, 1987	
	Number	Percent	Number	Percent
State Total	1,064,732	100.0	1,082,501	100.0
City & County of Honolulu	818,487	76.9	830,597	76.7
Hawaii County	112,039	10.5	114,434	10.6
Kauai County[4]	46,440	4.4	47,569	4.4
Maui County[3]	87,766	8.2	89,901	8.3
Lanai Island	2,129	0.2	2,275	0.2
Maui Island	78,790	7.4	80,907	7.5
Molokai Island[3]	6,847	0.6	6,719	0.6

1/Includes Navy and Coast Guard crews
2/Includes military dependents (1970--61,858; 1980--64,023; 1985--67,100)
3/Includes Kalawao County (Kalaupapa 1970--172; 1980--144; 1987--145)
4/Estimate for Niihau Island: July 1, 1981--260; July 1, 1987--200)

Source: Hawaii State Department of Planning and Economic Development, Statistical Report 147; Preliminary Intercensal Estimates, 1970-1980, July 9, 1981; DPED Preliminary Estimates, June, 1988.

FIGURE 1
BIRTHS OCCURRING IN HAWAII 1900-1987

TABLE 2

LIVE BIRTHS BY PLACE OF OCCURRENCE REALLOCATED TO PLACE OF RESIDENCE AND RACE OF CHILD
STATE OF HAWAII, 1987

GEOGRAPHIC AREA	PLACE OF OCCURRENCE	BIRTH BY PLACE OF RESIDENCE		RACE OF CHILD													
		NO.	RATE*	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER	UNKNOWN
TOTAL RECORDED	18690	18690	17.3	4420	51	5740	663	2905	2327	158	320	444	922	160	73	505	2
STATE OF HAWAII	18690	18555	17.1	4365	51	5735	653	2892	2316	158	315	440	910	160	73	486	1
COUNTY OF HAWAII	1828	1915	16.6	343	9	929	26	226	216	25	9	8	19	43		60	
CITY OF HILO	1214	596	13.5	51	2	324	12	46	110	9	2	1	4	20		15	
BALANCE OF COUNTY	614	1319	18.6	294	7	605	14	180	106	16	7	7	15	23		45	
COUNTY OF HONOLULU	14569	14160	17.1	3525	26	3857	599	2128	1807	117	293	428	876	72	70	362	
CITY OF HONOLULU	13103	5275	13.5	1042	5	1202	399	868	862	34	189	207	228	23	55	161	
BALANCE OF COUNTY	1466	8885	20.3	2483	21	2655	200	1260	945	83	104	221	648	49	15	201	
COUNTY OF KALAWAO																	
COUNTY OF KAUAI	811	865	18.1	159	9	300	9	219	119	6	6	1	5	22	1	8	1
ISLAND OF KAUAI	811	864	18.2	159	9	299	9	219	119	6	6	1	5	22	1	8	1
ISLAND OF NIIHAU		1	5.0			1											
COUNTY OF MAUI	1481	1615	17.9	336	7	649	19	319	174	10	7	3	10	23	2	56	
ISLAND OF LANAI	9	20	11.4	3		6		15	2								
ISLAND OF MAUI	1398	1442	17.7	324	5	533	16	287	169	10	7	2	10	23	2	54	
ISLAND OF MOLOKAI (EXCL. KALAWAO)	74	147	21.9	9	2	110	3	17	3			1				2	
NONRESIDENT		128		55		3	10	10	10		5	4	12			19	
UNKNOWN RESIDENCE	1	7				2		3	1								1

*NUMBER OF BIRTHS PER 1,000 RESIDENT POPULATION

TABLE 3

LIVE BIRTHS BY PLACE OF OCCURRENCE REALLOCATED TO PLACE OF RESIDENCE AND RACE OF MOTHER
STATE OF HAWAII, 1987

GEOGRAPHIC AREA	PLACE OF OCCURRENCE	BIRTH BY PLACE OF RESIDENCE		RACE OF MOTHER													
		NO.	RATE*	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER	UNKNOWN
TOTAL RECORDED	18690	18690	17.3	5707	134	4174	669	3126	2414	143	415	462	684	193	74	493	2
STATE OF HAWAII	18690	18555	17.1	5646	134	4172	659	3116	2405	143	409	456	674	192	74	474	1
COUNTY OF HAWAII	1828	1915	16.7	519	28	662	36	275	220	14	14	8	9	58	1	67	
CITY OF HILO	1214	596	13.6	91	5	243	16	64	116	9	6	3		27		16	
BALANCE OF COUNTY	614	1319	18.7	428	23	419	20	211	104	9	8	5	9	31	1	51	
COUNTY OF HONOLULU	14569	14160	17.0	4426	66	2838	594	2260	1899	109	378	444	658	71	72	345	
CITY OF HONOLULU	13103	5275	13.5	1374	12	853	381	920	886	26	231	204	160	17	56	155	
BALANCE OF COUNTY	1466	8885	20.2	3052	54	1985	213	1340	1013	83	147	240	498	54	16	190	
COUNTY OF KALAWAO																	
COUNTY OF KAUAI	811	865	18.2	238	19	186	10	239	117	7	5	1	3	25		14	1
ISLAND OF KAUAI	811	864	18.2	238	18	186	10	239	117	7	5	1	3	25		14	1
ISLAND OF NIIHAU		1			1												
COUNTY OF MAUI	1481	1615	18.0	463	21	486	19	342	169	9	12	3	4	38	1	48	
ISLAND OF LANAI	9	26	11.4	5		6		14	1								
ISLAND OF MAUI	1398	1442	17.8	443	15	391	18	304	159	9	12	2	4	38	1	46	
ISLAND OF MOLOKAI (EXCL. KALAWAO)	74	147	21.9	15	6	89	1	24	9			1				2	
NONRESIDENT		128		61		2	10	7	8		6	5	10			19	
UNKNOWN RESIDENCE	1	7						3	1			1		1			1

*NUMBER OF BIRTHS PER 1,000 RESIDENT POPULATION

TABLE 4

LIVE BIRTHS BY RACE OF MOTHER AND TYPE OF CONGENITAL MALFORMATION
STATE OF HAWAII, 1987

TYPE OF CONGENITAL MALFORMATION	TOTAL	PERCENT	RACE OF MOTHER													
			CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGESE	VIETNAMESE	OTHER	UNKNOWN
TOTAL	18,555	100.0	5,646	134	4,172	659	3,116	2,405	143	409	456	674	192	74	474	
PERCENT	100.0		30.4	.7	22.5	3.6	16.8	13.0	.8	2.2	2.5	3.6	1.0	.4	2.6	
NO MALFORMATION	18,300	98.6	5,572	133	4,102	651	3,071	2,382	140	403	451	664	187	73	470	
ONE OR MORE MALFORMATIONS	255	1.4	74	1	70	8	45	23	3	6	5	10	5	1	4	
ANENCEPHALUS (01)	2		1		1											
SPINA BIFIDA, MENINGOCELE (02)	2				1		1									
HYDROCEPHALUS (03)	2					1					1					
CIRCULATORY SYSTEM (06, 07)	18	.1	5		6		2	2		1		1		1		
CLEFT PALATE & HARELIP (09)	20	.1	4		5		4	3	1			2			1	
DIGESTIVE SYSTEM (10)	5		4					1								
GENITO-URINARY (11)	11	.1	3		2		4	1				1				
CLUBFOOT (12)	7		3		4											
BONE & JOINT (13, 14)	37	.2	11		10	1	3	6	2	1		2			1	
MULTIPLE ANOMALIES (16, 17, 18)	12	.1	7		2		2	1								
DOWNS DISEASE (15)	5		2				2	1								
OTHER AND UNSPECIFIED (RESIDUAL)	147	.8	38	1	42	6	30	10		4	4	4	6		2	

* IF ANY INFANT HAS MORE THAN ONE CONGENITAL MALFORMATION, THE SUM OF THE PERCENTAGES WILL BE GREATER THAN 100

TABLE 5

LIVE BIRTHS BY PLACE AND MONTH OF OCCURRENCE
STATE OF HAWAII, 1987

GEOGRAPHIC AREA	TOTAL	PERCENT	MONTH OF BIRTH											
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
TOTAL RECORDED	18690	100.0	1614	1382	1550	1425	1572	1462	1535	1648	1684	1607	1558	1653
STATE OF HAWAII	18689	100.0	1614	1382	1550	1425	1572	1462	1535	1648	1684	1606	1558	1653
PERCENT			8.6	7.4	8.3	7.6	8.4	7.8	8.2	8.8	9.0	8.6	8.3	8.8
COUNTY OF HAWAII	1828	9.8	159	143	151	129	142	141	125	179	171	148	167	173
CITY OF HILO	1214	6.5	97	102	105	92	101	97	79	127	118	86	100	110
BALANCE OF COUNTY	614	3.3	62	41	46	37	41	44	46	52	53	62	67	63
COUNTY OF HONOLULU	14569	78.0	1252	1083	1195	1130	1243	1139	1214	1272	1296	1266	1215	1264
CITY OF HONOLULU	13103	70.1	1101	991	1064	1022	1132	1029	1092	1139	1154	1132	1109	1138
BALANCE OF COUNTY	1466	7.8	151	92	131	108	111	110	122	133	142	134	106	126
COUNTY OF KALAWAO														
COUNTY OF KAUAI	811	4.3	65	51	84	71	66	61	77	62	74	63	58	79
ISLAND OF KAUAI	811	4.3	65	51	84	71	66	61	77	62	74	63	58	79
ISLAND OF NIIHAU														
COUNTY OF MAUI	1481	7.9	138	105	120	95	121	121	119	135	143	129	118	137
ISLAND OF LANAI	9					2	1		1	2	2		1	
ISLAND OF MAUI	1398	7.5	134	100	114	88	117	117	109	125	130	121	112	131
ISLAND OF MOLOKAI	74	.4	4	5	6	5	3	4	9	8	11	8	5	6
(EXCL. KALAWAO)														
NONRESIDENT														
UNKNOWN RESIDENCE	1											1		

TABLE 6

TOTAL LIVE BIRTHS OCCURRING IN HAWAII
PLACE OF BIRTH BY TYPE OF ATTENDANT BY RACE OF CHILD
STATE OF HAWAII, 1987

PLACE OF BIRTH & ATTENDANT		TOTAL	RACE OF CHILD												
			CAUC	HAW'N	CHIN	FIL'A	JAP'N	P KCN	KOR'N	SAM'N	NEGRO	P'ESE	VIET	OTHER	UNK
TOTAL BIRTHS	MED DOCTOR	18234	4173	5704	659	2865	2309	154	317	440	881	160	73	490	9
	OSTEOPATH	138	72	3	1	16	3	4	4	1	30	..	..	4	..
	MIDWIFE	71	15	41	2	9	..	..	1	1	..	..	..	2	..
	OTHER	241	149	39	2	14	17	..	..	1	8	..	..	8	3
	NATUROPATH	6	5	1	..	..	..	..	..	..	..	..	..	..	..
	SUB TOTAL	18690	4414	5788	664	2904	2329	158	322	443	919	160	73	504	12
OTHER PLACES a/	MED DOCTOR	10	2	2	..	3	..	..	..	..	2	..	..	..	1
	OSTEOPATH	1	..	..	..	1	..	..	..	..	..	..	..	..	..
	MIDWIFE	13	11	..	..	1	..	..	1	..	..	..	..	..	..
	OTHER	212	146	22	2	9	15	..	..	1	7	..	..	8	2
	NATUROPATH	5	5	..	..	..	..	..	..	..	..	..	..	..	..
	SUB TOTAL	241	164	24	2	14	15	..	1	1	9	..	..	8	3
HOSPITAL b/	MED DOCTOR	18212	4171	5693	659	2862	2309	154	317	439	878	160	73	489	8
	OSTEOPATH	137	72	3	1	15	3	4	4	1	30	..	..	4	..
	MIDWIFE	58	4	41	2	8	..	..	..	1	..	..	..	2	..
	OTHER	28	3	17	..	5	2	..	..	..	1	..	..	..	..
	NATUROPATH	1	..	1	..	..	..	..	..	..	..	..	..	..	..
	SUB TOTAL	18436	4250	5755	662	2890	2314	158	321	441	909	160	73	495	8
OTHER FACILITY c/	MED DOCTOR	12	..	9	..	..	..	..	..	1	1	..	..	1	..
	OTHER	1	..	..	..	..	..	..	..	..	..	..	..	..	1
	SUB TOTAL	13	..	9	..	..	..	..	..	1	1	..	..	1	1

a/ AT HOME
b/ HOSPITALS AND LARGE DISPENSARIES
c/ SMALL DISPENSARIES, BIRTHING CENTERS

TABLE 7
LIVE BIRTHS BY RACE OF FATHER AND OF MOTHER
STATE OF HAWAII, 1987

RACE OF MOTHER		ALL RACES		RACE OF FATHER													
		NUMBER	PERCENT	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER	UNKNOWN
ALL RACES	NUMBER	18,555	100.0	5,399	142	3,206	603	2,728	2,256	197	237	432	835	279	51	453	1,737
	PERCENT	100.0		29.1	.8	17.3	3.2	14.7	12.2	1.1	1.3	2.3	4.5	1.5	.3	2.4	9.4
CAUCASIAN		5,646	30.4	3,972	28	419	51	246	229	34	20	35	135	36	3	76	362
HAWAIIAN		134	.7	16	21	34	1	5	5	3		7	2	5		5	30
PART HAWN		4,172	22.5	372	65	1,748	68	441	291	57	19	116	50	127	2	112	704
CHINESE		659	3.6	95	2	53	285	32	136	3	8	3	2	8	1	6	25
FILIPINO		3,116	16.8	381	9	419	31	1,713	172	29	5	17	39	36	4	29	232
JAPANESE		2,405	13.0	266	7	320	132	179	1,308	11	25	7	8	23	2	24	93
PUERTO RCN		143	.8	17	1	19		16	6	40		2	11	3		1	27
KOREAN		409	2.2	90	1	31	19	23	67	3	155	2	6	3		2	7
SAMOAN		456	2.5	28	1	37	2	11	1	3	1	234	18	4		13	103
NEGRO		674	3.6	44	1	3	1	3	3	6			543	2		2	66
PORTUGUESE		192	1.0	14	3	61	4	36	18	4	2	1	4	28		2	15
VIETNAMESE		74	.4	9		3	5	1	3				1		37		15
OTHER		474	2.6	95	3	59	4	22	17	4	2	8	16	4	2	181	57
UNKNOWN		1															1
FATHER AND MOTHER OF SAME RACE		10,266	55.3	3,972	21	1,748	285	1,713	1,308	40	155	234	543	28	37	181	1

TABLE 8
LIVE BIRTHS BY RACE OF MOTHER AND MONTH OF FIRST PRENATAL VISIT
STATE OF HAWAII, 1987

RACE OF MOTHER		TOTAL NO. OF BIRTHS		MONTH OF FIRST PRENATAL VISIT											
		NUMBER	PERCENT	1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	NONE	NOT STATED	FIRST 3 MONTHS
ALL RACES	NUMBER	18,555	100.0	2,554	7,336	3,815	1,508	963	679	427	327	85	146	715	13,705
	PERCENT	100.0		13.8	39.5	20.6	8.1	5.2	3.7	2.3	1.8	.5	.8	3.9	73.9
CAUCASIAN		5,646	30.4	965	2,408	1,192	415	227	138	96	48	13	38	105	4,565
HAWAIIAN		134	.7	12	34	29	17	11	7	3	7	3	6	5	75
PART HAWN		4,172	22.5	363	1,407	906	420	298	221	149	112	27	50	219	2,676
CHINESE		659	3.6	90	353	105	29	17	12	3	16	3	2	29	548
FILIPINO		3,116	16.8	338	1,140	676	315	197	144	80	63	12	14	137	2,154
JAPANESE		2,405	13.0	434	1,170	409	124	77	48	30	14	4	5	90	2,013
PUERTO RCN		143	.8	30	49	41	6	4	5	2	2		1	3	120
KOREAN		409	2.2	61	178	83	31	17	10	6	3	1		19	322
SAMOAN		456	2.5	28	97	65	46	35	50	25	37	13	14	46	190
NEGRO		674	3.6	127	257	169	46	31	10	9			4	21	553
PORTUGUESE		192	1.0	37	64	42	17	10	5	5	2		1	9	143
VIETNAMESE		74	.4	20	19	12	12	4	2	2	1			2	51
OTHER		474	2.6	49	159	86	30	35	27	17	22	9	11	29	294
UNKNOWN		1			1										1

TABLE 9

LIVE BIRTHS BY RACE OF MOTHER AND NUMBER OF CHILDREN BORN TO MOTHER
STATE OF HAWAII, 1987

RACE OF MOTHER		TOTAL NO. OF BIRTHS		TOTAL NUMBER OF CHILDREN BORN TO MOTHER												
		NUMBER	PERCENT	-1-	-2	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	12 OR MORE	UNK
ALL RACES	NUMBER	18,555	100.0	5,505	5,478	3,746	1,969	947	490	203	99	55	25	14	20	4
	PERCENT	100.0		29.7	29.5	20.2	10.6	5.1	2.6	1.1	.5	.3	.1	.1	.1	
CAUCASIAN		5,646	30.4	1,698	1,739	1,142	592	267	110	50	20	14	6	1	6	1
HAWAIIAN		134	.7	24	26	33	19	14	8	2	2	1		3	2	
PART HAWN		4,172	22.5	1,082	1,092	864	537	288	156	76	30	24	11	6	5	1
CHINESE		659	3.6	224	215	127	57	20	11	1	2	2				
FILIPINO		3,116	16.8	1,043	921	608	286	124	79	31	16	2	1	1	3	1
JAPANESE		2,405	13.0	738	787	510	223	77	44	18	5	1	1			1
PUERTO RCN		143	.8	40	43	26	14	9	8		1	1			1	
KOREAN		409	2.2	112	137	74	42	24	9	4	5	1		1		
SAMOAN		456	2.5	117	120	77	49	40	25	12	8	2	4	1	1	
NEGRO		674	3.6	210	212	138	63	31	11	4	3	2				
PORTUGUESE		192	1.0	48	63	39	19	10	9	2	1		1			
VIETNAMESE		74	.4	22	15	13	11	10	1	1					1	
OTHER		474	2.6	147	107	95	57	33	19	2	6	5	1	1	1	
UNKNOWN		1			1											

TABLE 10

LIVE BIRTHS BY RACE OF MOTHER AND NUMBER OF CHILDREN BORN ALIVE TO MOTHER
STATE OF HAWAII, 1987

RACE OF MOTHER		TOTAL NO. OF BIRTHS		TOTAL NUMBER OF CHILDREN BORN ALIVE												
		NUMBER	PERCENT	-1-	-2	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	12 OR MORE	UNK
ALL RACES	NUMBER	18,555	100.0	7,660	6,088	2,990	1,141	401	154	63	26	16	6	4	3	3
	PERCENT	100.0		41.3	32.8	16.1	6.1	2.2	.8	.3	.1	.1				
CAUCASIAN		5,646	30.4	2,534	1,885	851	265	74	21	8	6	2				
HAWAIIAN		134	.7	34	31	24	23	12	5	3		1		1		
PART HAWN		4,172	22.5	1,450	1,259	799	411	136	64	30	9	8	3	1	1	1
CHINESE		659	3.6	294	244	91	19	8	3							
FILIPINO		3,116	16.8	1,304	1,008	517	176	66	23	12	4	2		2	1	1
JAPANESE		2,405	13.0	1,089	890	328	69	19	7	1	1					1
PUERTO RCN		143	.8	52	48	26	13	2	2							
KOREAN		409	2.2	179	162	47	17	4								
SAMOAN		456	2.5	140	117	86	41	42	15	5	6	2	1		1	
NEGRO		674	3.6	289	241	98	36	9		1						
PORTUGUESE		192	1.0	66	67	36	13	7	3							
VIETNAMESE		74	.4	28	18	13	8	5	1	1						
OTHER		474	2.6	201	117	74	50	17	10	2		1	2			
UNKNOWN		1			1											

TABLE 11
LIVE BIRTHS BY AGE OF MOTHER AND NUMBER OF CHILDREN BORN
STATE OF HAWAII, 1987

AGE OF MOTHER	TOTAL	PERCENT	TOTAL NUMBER OF CHILDREN BORN TO MOTHER												
			-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	> 11	UNK
ALL AGES	18,555	100.0	5,505	5,478	3,746	1,969	947	490	203	99	55	25	14	20	4
PERCENT	100.0		29.7	29.5	20.2	10.6	5.1	2.6	1.1	.5	.3	.1	.1	.1	
UNDER 15	17	.1	16	1											
15-17	533	2.9	427	93	9	3		1							
18-19	1,266	6.8	772	368	99	18	7	1					1		
20-24	5,436	29.3	1,962	1,858	959	413	162	55	20	2	2	2	1		
25-29	5,526	29.8	1,355	1,622	1,270	678	338	160	47	34	11	6	1	2	2
30-34	4,021	21.7	760	1,148	963	567	259	160	81	32	25	12	5	7	2
35-39	1,548	8.3	188	351	408	258	153	96	42	22	13	4	5	8	
40-44	203	1.1	24	36	37	30	28	17	13	9	4	1	1	3	
45-49	5		1	1	1	2									
OVER 49															
UNKNOWN															

TABLE 12
LIVE BIRTHS BY AGE OF MOTHER AND NUMBER OF CHILDREN BORN ALIVE
STATE OF HAWAII, 1987

AGE OF MOTHER	TOTAL	PERCENT	TOTAL NUMBER OF CHILDREN BORN ALIVE												
			-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	> 11	UNK
ALL AGES	18,555	100.0	7,660	6,088	2,990	1,141	401	154	63	26	16	6	4	3	3
PERCENT	100.0		41.3	32.8	16.1	6.1	2.2	.8	.3	.1	.1				
UNDER 15	17	.1	17												
15-17	533	2.9	480	50	3										
18-19	1,266	6.8	950	274	40	2									
20-24	5,436	29.3	2,692	1,833	664	201	38	8							
25-29	5,526	29.8	1,980	1,913	1,040	404	127	42	14	4	1				1
30-34	4,021	21.7	1,183	1,457	831	329	139	55	26	9	7	2	1		2
35-39	1,548	8.3	333	508	374	174	83	37	16	10	6	3	2	2	
40-44	203	1.1	44	52	37	29	14	12	7	3	2	1	1	1	
45-49	5		1	1	1	2									
OVER 49															
UNKNOWN															

TABLE 13
SINGLE LIVE BIRTHS BY WEIGHT AT BIRTH AND RACE OF CHILD
STATE OF HAWAII, 1987

WEIGHT AT BIRTH IN GRAMS		ALL RACES		RACE OF CHILD													
		NUMBER	PERCENT	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER	UNKNOWN
TOTAL		18,235	100.0	4,274	51	5,647	645	2,840	2,278	156	311	427	900	159	69	477	1
LOW BIRTH WEIGHT[a/]	NUMBER	1,160	6.4	190	5	349	43	249	153	12	21	16	74	11		36	1
	PERCENT[b/]			4.4	20.0	6.2	6.7	8.8	6.7	7.7	6.7	3.7	1.4	6.9	--	7.5	
UNDER 501		23	.1	4	1	11		2	3				1			1	
501 THRU 1000		71	.4	17		19	2	9	9	1	1		7	2		4	
1001 THRU 1500		80	.4	10		27	1	18	8		1		9	2		4	
1501 THRU 2000		188	1.0	37	1	50	9	37	22	3	2		17	1		9	
2001 THRU 2500		798	4.4	122	3	242	31	183	111	8	17	16	40	6		18	1
2501 THRU 3000		3,537	19.4	523	12	1,140	141	753	543	30	41	36	198	26	23	71	
3001 THRU 3500		7,172	39.3	1,553	15	2,203	294	1,197	989	55	118	142	348	70	30	158	
3501 THRU 4000		4,803	26.3	1,423	12	1,499	138	528	480	45	97	169	220	42	12	138	
4001 THRU 4500		1,301	7.1	493	7	376	23	100	95	13	30	47	47	9	4	57	
4501 THRU 5000		221	1.2	83		68	5	10	16	1	2	12	10	1		13	
OVER 5000		33	.2	9		7	1	2	1		2	5	3			3	
UNKNOWN		8				5		1	1							1	

MEDIAN WEIGHT, LB.OZ. 7- 5 GRAMS 3304

[a/] INFANTS OF 2500 GRAMS OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
[b/] PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT

TABLE 14
SINGLE LIVE BIRTHS BY WEIGHT AT BIRTH AND RACE OF MOTHER
STATE OF HAWAII, 1987

WEIGHT AT BIRTH IN GRAMS		ALL RACES		RACE OF MOTHER													
		NUMBER	PERCENT	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER	UNKNOWN
TOTAL		18,235	100.0	5,529	132	4,107	651	3,078	2,362	139	401	445	665	190	68	467	1
LOW BIRTH WEIGHT[a/]	NUMBER	1,160	6.4	260	9	252	39	270	169	13	24	17	58	13		35	1
	PERCENT[b/]			4.7	6.8	6.1	6.0	8.8	7.2	9.4	6.0	3.8	8.7	6.8	--	7.5	--
UNDER 501		23	.1	6	1	8	1	3	2							2	
501 THRU 1000		71	.4	23		13	2	10	8	3	1		6			5	
1001 THRU 1500		80	.4	19		20	2	17	5		4		8	3		2	
1501 THRU 2000		188	1.0	51	2	35	6	37	30	2	2	1	12	2		8	
2001 THRU 2500		798	4.4	161	6	176	28	203	124	8	17	16	32	8		18	1
2501 THRU 3000		3,537	19.4	706	28	837	144	808	606	29	57	39	157	41	20	65	
3001 THRU 3500		7,172	39.3	2,041	45	1,576	290	1,303	1,015	45	167	152	260	74	35	169	
3501 THRU 4000		4,803	26.3	1,800	33	1,108	146	568	472	46	113	168	159	49	11	130	
4001 THRU 4500		1,301	7.1	606	14	275	27	114	88	5	37	50	23	8	2	52	
4501 THRU 5000		221	1.2	100	2	52	4	11	11	1	2	14	7	4		13	
OVER 5000		33	.2	16		4	1	2			1	5	1	1		2	
UNKNOWN		8			1	3		2	1							1	

MEDIAN WEIGHT, LB.OZ. 7- 5 GRAMS 3304

[a/] INFANTS OF 2500 GRAMS OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
[b/] PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT

TABLE 15
SINGLE MALE LIVE BIRTHS BY WEIGHT AND GESTATION PERIOD
STATE OF HAWAII, 1987

WEIGHT AT BIRTH IN GRAMS		TOTAL	PERCENT	GESTATION PERIOD IN WEEKS						
				UNDER 20	20-27	28-35	36-39	40	OVER 40	UNKNOWN
TOTAL		9,454	100.0	4	62	565	4,365	1,882	2,317	259
LOW BIRTH WEIGHT[a]	NUMBER	592	6.3	3	46	219	209	21	49	45
	PERCENT**			75.0	74.2	38.3	4.8	1.1	2.1	--
UNDER 501		15	.2	1	9	1	1		1	2
501 THRU 1000		40	.4	1	25	8	2		1	3
1001 THRU 1500		35	.4		5	24			1	5
1501 THRU 2000		105	1.1		5	63	23		4	10
2001 THRU 2500		397	4.2	1	2	123	183	21	42	25
2501 THRU 3000		1,614	17.1		4	144	961	209	250	46
3001 THRU 3500		3,526	37.3		5	126	1,798	739	775	83
3501 THRU 4000		2,750	29.1	1	5	63	1,082	673	866	60
4001 THRU 4500		817	8.6		1	10	275	205	312	14
4501 THRU 5000		132	1.4			3	37	30	58	4
OVER 5000		18	.2				6	3	7	2
UNKNOWN		5	.1		1		1	2		1

MEDIAN WEIGHT, LB.OZ. 7- 6 GRAMS 3346

[a] INFANTS OF 2500 GRAMS OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
[b] PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT

TABLE 16
SINGLE FEMALE LIVE BIRTHS BY WEIGHT AND GESTATION PERIOD
STATE OF HAWAII, 1987

WEIGHT AT BIRTH IN GRAMS		TOTAL	PERCENT	GESTATION PERIOD IN WEEKS						
				UNDER 20	20-27	28-35	36-39	40	OVER 40	UNKNOWN
TOTAL		8,781	100.0	5	38	436	3,793	1,860	2,423	226
LOW BIRTH WEIGHT[a]	NUMBER	568	6.5	4	28	176	229	37	56	36
	PERCENT[b]			80.0	77.7	40.4	6.0	2.0	2.4	--
UNDER 501		8	.1	3	4					1
501 THRU 1000		31	.4	1	14	9	1		2	4
1001 THRU 1500		45	.5		4	31	2		3	5
1501 THRU 2000		83	.9		5	47	25	1	1	4
2001 THRU 2500		401	4.6		1	69	201	36	52	22
2501 THRU 3000		1,923	21.9	1	2	116	1,060	326	380	58
3001 THRU 3500		3,646	41.5		5	92	1,641	827	997	84
3501 THRU 4000		2,053	23.4			35	711	531	742	34
4001 THRU 4500		484	5.5			15	124	121	211	13
4501 THRU 5000		89	1.0			1	20	16	49	3
OVER 5000		15	.2				7	2	6	
UNKNOWN		3			1	1	1			

MEDIAN WEIGHT, LB.OZ. 7- 3 GRAMS 3258

[a] INFANTS OF 2500 GRAMS OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
[b] PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT

TABLE 17
LIVE BIRTHS BY RACE, SEX, PLURALITY OF BIRTH, AND LOW BIRTH WEIGHT
STATE OF HAWAII, 1987

RACE OF CHILD	SINGLE AND PLURAL BIRTHS				SINGLE MALE BIRTHS			SINGLE FEMALE BIRTHS			PLURAL MALE BIRTHS			PLURAL FEMALE BIRTHS		
	TOTAL NO. OF BIRTHS	MALE	FEMALE	RATIO[a]	TOTAL	LOW BIRTHWEIGHT[b] NO.	LOW BIRTHWEIGHT[b] PERCENT[c]	TOTAL	LOW BIRTHWEIGHT[b] NO.	LOW BIRTHWEIGHT[b] PERCENT[c]	TOTAL	LOW BIRTHWEIGHT[b] NO.	LOW BIRTHWEIGHT[b] PERCENT[c]	TOTAL	LOW BIRTHWEIGHT[b] NO.	LOW BIRTHWEIGHT[b] PERCENT[c]
ALL RACES	18,555	9,621	8,934	107.6	9,454	594	6.3	8,781	567	6.5	167	89	53.3	153	82	53.6
CAUCASIAN	4,365	2,213	2,152	102.8	2,185	90	4.1	2,089	100	4.8	28	11	39.3	63	31	49.2
HAWAIIAN	51	30	21	142.8	30	4	13.3	21	1	4.8						
PART HAWN	5,735	3,012	2,723	110.6	2,958	191	6.5	2,689	160	6.0	54	27	50.0	34	17	50.0
CHINESE	653	341	312	109.2	334	23	6.9	311	20	6.4	7	3	42.9	1		
FILIPINO	2,892	1,504	1,388	108.3	1,468	129	8.8	1,372	119	8.7	36	25	69.4	16	13	81.3
JAPANESE	2,316	1,209	1,107	109.2	1,187	70	5.9	1,091	83	7.6	22	13	59.1	16	11	68.8
PUERTO RCN	158	81	77	105.1	79	6	7.6	77	6	7.8	2					
KOREAN	315	164	151	108.6	160	12	7.5	151	9	6.0	4	2	50.0			
SAMOAN	440	222	218	101.8	216	11	5.1	211	5	2.4	6	2	33.3	7	3	42.9
NEGRO	910	471	439	107.2	466	34	7.3	434	40	9.2	5	4	80.0	5	3	60.0
PORTUGUESE	160	86	74	116.2	86	6	7.0	73	5	6.8				1		
VIETNAMESE	73	34	39	87.1	31			38			3	2	66.7	1	1	100.0
OTHER	486	254	232	109.4	254	18	7.1	223	18	8.1				9	3	33.3
UNKNOWN	1		1					1	1	100.0						

a/ NUMBER OF MALES PER 100 FEMALES
b/ INFANTS OF 2500 GRAMS (5 LB 8 OZ) OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
c/ PERCENT OF BIRTHS OF KNOWN WEIGHT ONLY

TABLE 18
LIVE BIRTHS BY RACE AND AGE OF MOTHER
STATE OF HAWAII, 1987

RACE OF MOTHER		ALL AGES		AGE OF MOTHER IN YEARS										
		NUMBER	PERCENT	< 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	OVER 49	UNKNOWN
ALL RACES	NUMBER	18,555	100.0	17	533	1,266	5,436	5,526	4,021	1,548	203	5		
	PERCENT	100.0		.1	2.9	6.8	29.3	29.8	21.7	8.3	1.1			
CAUCASIAN		5,646	30.4	1	76	301	1,739	1,712	1,226	516	73	2		
HAWAIIAN		134	.7	1	3	10	36	36	33	9	6			
PART HAWN		4,172	22.5	7	241	491	1,523	1,169	544	175	22			
CHINESE		659	3.6		3	19	84	186	264	91	12			
FILIPINO		3,116	16.8	2	107	223	917	950	618	259	37	3		
JAPANESE		2,405	13.0	2	33	60	312	718	912	339	29			
PUERTO RCN		143	.8		7	12	59	44	13	6	2			
KOREAN		409	2.2		3	8	62	169	112	48	7			
SAMOAN		456	2.5	1	23	43	162	118	73	31	5			
NEGRO		674	3.6	1	14	43	314	209	71	20	2			
PORTUGUESE		192	1.0		4	19	65	61	31	11	1			
VIETNAMESE		74	.4		2	1	15	19	24	11	2			
OTHER		474	2.6	2	17	36	148	134	100	32	5			
UNKNOWN		1						1						

TABLE 19
LIVE BIRTHS BY AGE OF FATHER AND OF MOTHER
STATE OF HAWAII, 1987

AGE OF FATHER		ALL AGES		AGE OF MOTHER IN YEARS										
		NUMBER	PERCENT	< 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	OVER 49	UNKNOWN
ALL AGES	NUMBER	18,555	100.0	17	533	1,266	5,436	5,526	4,021	1,548	203	5		
	PERCENT	100.0		.1	2.9	6.8	29.3	29.8	21.7	8.3	1.1			
< 15		3			3									
15-17		114	.6	3	63	40	7	1						
18-19		403	2.2		92	217	90	4						
20-24		3,733	20.1	2	153	584	2,407	504	64	18	1			
25-29		4,828	26.0		23	126	1,673	2,437	482	81	6			
30-34		4,074	22.0		7	34	397	1,546	1,826	246	18			
35-39		2,360	12.7			7	123	473	1,012	706	39			
40-44		896	4.8			4	40	147	325	304	75	1		
45-49		254	1.4			2	17	43	87	69	35	1		
50-54		76	.4			1	1	7	31	27	9			
55-59		40	.2				4	9	12	10	3	2		
60-64		15	.1					5	2	7	1			
OVER 64		21	.1				3	3	4	9	2			
UNKNOWN		1,738	9.4	12	192	251	674	347	176	71	14	1		

MEDIAN AGE OF KNOWN FATHERS = 29
MEDIAN AGE OF ALL MOTHERS = 26

TABLE 20
RESIDENT LIVE BIRTHS OCCURRING IN HAWAII
ONE MINUTE APGAR SCORE BY FIVE MINUTE APGAR SCORE
STATE OF HAWAII, 1987

ONE MINUTE APGAR SCORE	TOTAL	FIVE MINUTE APGAR SCORE											
		0	1	2	3	4	5	6	7	8	9	10	UNK
TOTAL	18555	31	25	12	13	26	48	91	281	1496	15302	1093	137
0	38	25	4	..	2	2	..	1	2	..	2	..	..
1	100	5	18	6	2	9	13	12	21	4	10	..	..
2	109	..	1	6	2	6	16	15	16	32	15	..	..
3	145	..	1	..	4	4	7	18	33	33	44	1	..
4	221	1	1	..	1	4	6	19	43	55	87	4	..
5	335	..	..	..	..	1	2	14	51	111	153	3	..
6	698	..	..	..	..	..	1	10	65	247	366	9	..
7	1791	..	..	..	1	..	..	..	47	547	1177	18	1
8	10205	..	..	..	1	..	2	2	3	494	9591	150	2
9	4678	..	..	..	..	..	1	..	..	11	3851	815	..
10	95	..	..	..	..	..	..	..	..	..	2	93	..
UNK	140	..	..	..	..	..	..	..	..	2	4	..	134

TABLE 21

RESIDENT LIVE BIRTHS OCCURRING IN HAWAII
FIVE MINUTE APGAR SCORE BY RESIDENCE OF MOTHER
STATE OF HAWAII, 1987

GEOGRAPHIC AREA	TOTAL	FIVE MINUTE APGAR SCORE											
		0	1	2	3	4	5	6	7	8	9	10	UNK
STATE	18555	31	25	12	13	26	48	91	281	1496	15302	1093	137
HAWAII CNTY BAL	1303	10	3	..	..	4	2	8	14	102	867	245	48
HILO CITY	612	..	..	..	..	..	..	1	7	21	435	142	6
HONO COUNTY BAL	5895	9	13	5	8	15	29	35	137	780	7440	386	28
HONOLULU CITY	9275	2	4	5	3	5	9	32	70	376	4541	213	15
KAUAI ISLAND	864	4	..	1	..	2	2	8	21	93	689	19	25
NIIHAU ISLAND	1	..	..	..	..	..	..	..	..	1	..	..	..
MAUI ISLAND	1442	6	3	1	2	..	6	6	29	107	1204	66	12
LANAI ISLAND	26	..	2	..	..	..	..	1	..	4	17	2	..
MOLOKAI ISLAND	147	..	..	..	..	..	..	..	3	12	109	20	3

TABLE 22

ILLEGITIMATE LIVE BIRTHS BY PLACE OF OCCURRENCE REALLOCATED TO PLACE OF RESIDENCE AND RACE OF MOTHER
STATE OF HAWAII, 1987

GEOGRAPHIC AREA	PLACE OF OCCURRENCE	BIRTH BY PLACE OF RESIDENCE		RACE OF MOTHER													
		NO.	RATE*	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER	UNKNOWN
TOTAL RECORDED	3988	3988	213.4	766	58	1742	48	618	247	39	33	159	101	51	19	107	
STATE OF HAWAII	3988	3967	213.8	758	58	1740	48	617	245	39	33	156	99	51	19	104	
COUNTY OF HAWAII	582	601	313.8	144	11	288	8	70	26	11	5	1	4	16		17	
CITY OF HILO	398	222	372.5	29	3	120	7	19	13	6	3	1		8		5	
BALANCE OF COUNTY	184	379	287.3	115	8	160	1	51	13	5	2		4	8		12	
COUNTY OF HONOLULU	2936	2744	193.8	462	30	1191	36	421	191	22	27	154	92	21	19	78	
CITY OF HONOLULU	2499	1020	193.4	183	9	350	17	176	93	7	16	68	30	9	16	46	
BALANCE OF COUNTY	337	1724	194.0	279	21	841	19	245	98	15	11	86	62	12	3	32	
COUNTY OF KALAWAO																	
COUNTY OF KAUAI	186	202	233.5	48	6	68	2	61	6	2	1		1	5		2	
ISLAND OF KAUAI	186	202	233.8	48	6	68	2	61	6	2	1		1	5		2	
ISLAND OF NIIHAU																	
COUNTY OF MAUI	384	420	260.1	104	11	193	2	65	22	4		1	2	9		7	
ISLAND OF LANAI	4	7	269.2			2		5									
ISLAND OF MAUI	358	362	251.0	102	8	156	1	53	20	4			2	9		7	
ISLAND OF MOLOKAI (EXCL. KALAWAO)	22	51	346.9	2	3	35	1	7	2			1					
NONRESIDENT		19		8		2			2			2	2			3	
UNKNOWN RESIDENCE		2						1				1					

* NUMBER OF BIRTHS PER 1000 RESIDENT LIVE BIRTHS.

TABLE 23
ILLEGITIMATE LIVE BIRTHS BY WEIGHT AT BIRTH AND RACE OF CHILD
STATE OF HAWAII, 1987

WEIGHT AT BIRTH IN GRAMS		ALL RACES		RACE OF CHILD													
		NUMBER	PERCENT	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER	UNKNOWN
TOTAL		3,967	100.0	490	28	2,158	43	554	195	46	14	143	147	35	17	97	
LOW BIRTH WEIGHT a/	NUMBER	350	8.8	30	3	178	4	70	23	4	2	5	11	6	1	13	
	PERCENT b/			.8	.1	4.5	.1	1.8	.6	.1	.1	.1	.3	.2		.3	
UNDER 501		5	.1	1	1	3											
501 THRU 1000		26	.7	3		11	1	2	4				2	1		2	
1001 THRU 1500		27	.7	1		13		6	3					1		3	
1501 THRU 2000		55	1.4	5		27	1	7	3	2	1		3	1		5	
2001 THRU 2500		237	6.0	20	2	124	2	55	13	2	1	5	6	3	1	3	
2501 THRU 3000		926	23.3	81	8	516	9	159	52	10	2	18	39	6	8	18	
3001 THRU 3500		1,501	37.8	187	7	816	18	230	69	16	4	53	58	11	4	28	
3501 THRU 4000		939	23.7	140	7	517	10	75	42	11	6	58	31	10	2	30	
4001 THRU 4500		211	5.3	41	3	112	1	18	9	4		6	6	2	2	7	
4501 THRU 5000		34	.9	10		17	1	1		1		2	1			1	
OVER 5000		3	.1	1		1							1				
UNKNOWN		3	.1			1		1				1					

MEDIAN WEIGHT, LB.OZ. 7- 1 GRAMS 3208

a/ INFANTS OF 2500 GRAMS OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
b/ PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT

TABLE 24
ILLEGITIMATE LIVE BIRTHS BY RACE AND AGE OF MOTHER
STATE OF HAWAII, 1987

RACE OF MOTHER		ALL AGES		AGE OF MOTHER IN YEARS									
		NUMBER	RATIO*	< 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	OVER 49	UNKNOWN
ALL RACES	NUMBER	3,967	213.8	16	453	715	1,521	730	355	154	23			
	RATIO*			941.2	849.9	564.8	279.8	132.1	88.3	99.5	113.3			
CAUCASIAN		758	134.3	1	54	88	243	178	125	61	8			
HAWAIIAN		58	432.8	1	3	9	20	10	7	7	1			
PART HAWN		1,740	417.1	7	215	365	716	309	97	25	6			
CHINESE		48	72.8		3	12	18	5	8	1	1			
FILIPINO		617	198.0	2	92	127	232	96	45	22	1			
JAPANESE		245	101.9	1	28	37	87	50	26	14	2			
PUERTO RCN		39	272.7		5	8	16	6	2	2				
KOREAN		33	80.7		3	5	6	9	5	5				
SAMOAN		156	342.1	1	20	26	71	20	13	3	2			
NEGRO		99	146.9	1	12	10	50	14	8	3	1			
PORTUGUESE		51	265.6		3	10	19	12	5	2				
VIETNAMESE		19	256.8		2	1	6	3	4	2	1			
OTHER		104	219.4	2	13	17	37	18	10	7				
UNKNOWN														

* NUMBER OF ILLEGITIMATE BIRTHS PER 1000 LIVE BIRTHS IN SPECIFIED GROUP.

TABLE 25

HAWAII RESIDENT BIRTHS OCCURRING OUTSIDE STATE BY AGE AND RACE OF MOTHER AND SEX OF CHILD*
1987

AGE OF MOTHER	TOTAL		RACE OF MOTHER AND SEX OF CHILD																	
			CAUCASIAN		JAPANESE		CHINESE		FILIPINO		HAWAIIAN PT HAW'N		KOREAN		BLACK		OTHER PAC. IS.		OTHER & UNK	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL	18	22	11	16		1	1		2	1	1		1		1	3	1	1		
UNDER 15	-	-																		
15 - 19	1	2		1						1					1					
20 - 24	4	5	3	2		1			1							2				
25 - 29	7	8	4	6					1				1			1	1	1		
30 - 34	2	5	2	5																
35 - 39	4	2	2	2			1				1									
40 & OVER	-	-																		

*INCLUDES BIRTHS OCCURRING IN THE UNITED STATES AND GUAM

FIGURE 2
DEATHS OCCURRING IN HAWAII 1900-1987

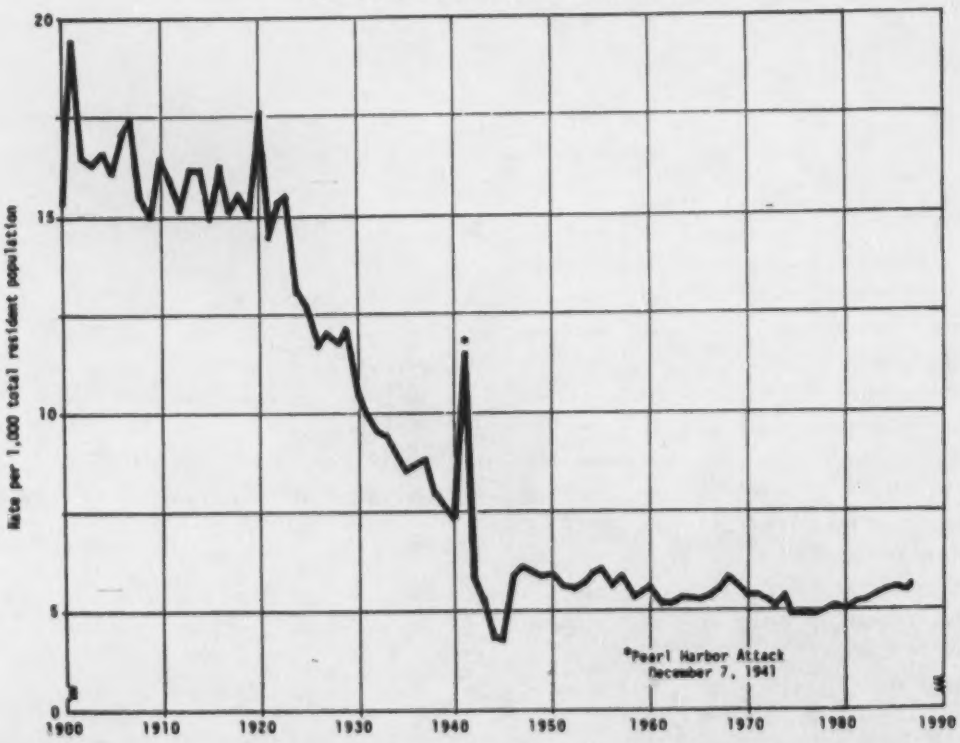


TABLE 26
TOTAL DEATHS BY PLACE OF OCCURRENCE REALLOCATED TO USUAL RESIDENCE BY RACE
STATE OF HAWAII, 1987a/

GEOGRAPHIC AREA	TOTAL BY PLACE OF OCCURR	TOTAL BY PLACE OF RESIDENCE		ALL RACES		RACE													
		NUMBER	RATEb/	MALE	FE-MALE	CAUCA-SIAN	HAWN	PT. HAWN	CHI-NESE	FILI-PINO	JAPA-NESE	PUERTO RICAN	KO-REAN	SA-MOAN	NEGRO	PORTU GUESE	VIETNA-MESE	OTHER RACES	UN-KNOWN
TOTAL RECORDED	6490	6490	6.0	3852	2638	1826	246	825	379	794	1772	63	98	82	61	261	9	69	5
STATE OF HAWAII	6486	6147	5.7	3631	2516	1558	246	821	376	787	1751	63	97	75	55	261	9	43	5
CTY OF HAWAII	750	785	6.8	475	310	205	43	121	6	87	230	13	3	1	3	68		5	
CITY OF HILO	486	287	6.5	170	117	50	17	39	2	27	114	6	2		1	27		2	
BALANCE OF CTY	264	498	7.0	305	193	155	26	82	4	60	116	7	1	1	2	41		3	
CTY OF HONOLULU	4930	4534	5.4	2637	1897	1180	164	588	360	544	1257	40	91	74	48	144	9	31	4
CITY-HONOLULU	3881	2569	6.6	1461	1108	717	61	234	302	229	800	19	59	39	18	72	8	9	2
BALANCE OF CTY	1049	1965	4.5	1176	789	463	103	354	58	315	457	21	32	35	30	72	1	22	2
CTY OF KALAWAO	1	2		1	1			1								1			
CTY OF KAUAI	297	304	6.4	205	99	56	8	30	5	69	108	5	2		2	15		3	1
ISL OF KAUAI	297	304	6.4	205	99	56	8	30	5	69	108	5	2		2	15		3	1
ISL OF NIIHAU																			
CTY OF MAUI	508	522	5.8	313	209	117	31	81	5	87	156	5	1		2	33		4	
ISL OF LANAI	16	25	11.0	14	11	4	1	1		11	7		1						
ISL OF MAUI	465	455	5.6	270	185	109	22	61	5	67	147	5			2	33		4	
ISL OF MOLOKAI (EXCL KALAWAO)	27	42	6.2	29	13	4	8	19		9	2								
NONRESIDENT		340		220	120	266		4	3	7	21		1	7	5			26	
UNKNOWN	4	3		1	2	2									1				

a/EXCLUDES DEATHS OF HAWAII RESIDENTS OCCURRING AND RECORDED IN OTHER REGISTRATION AREAS
b/RATE OF DEATH PER 1,000 RESIDENT POPULATION

TABLE 27
RESIDENT DEATHS BY PLACE AND MONTH OF OCCURRENCE
STATE OF HAWAII, 1987

PLACE OF OCCURRENCE		TOTAL	MONTH OF OCCURRENCE											
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
STATE OF HAWAII	NUMBER	6147	583	482	554	546	498	484	500	460	494	505	495	546	
	PERCENT	100.0	9.5	7.8	9.0	8.9	8.1	7.9	8.1	7.5	8.0	8.2	8.1	8.9	
CTY OF HAWAII		718	56	51	68	70	56	50	56	56	61	55	54	85	
CITY OF HILO		477	41	30	43	49	33	33	37	36	47	36	39	53	
BALANCE OF CTY		241	15	21	25	21	23	17	19	20	14	19	15	32	
CTY OF HONOLULU		4701	456	380	403	401	391	376	387	350	371	395	388	403	
CITY-HONOLULU		3674	366	294	303	307	296	305	310	264	287	314	312	316	
BALANCE OF CTY		1027	90	86	100	94	95	71	77	86	84	81	76	87	
CTY OF KALAWAO		1			1										
CTY OF KAUAI		271	21	17	31	26	19	21	22	20	26	29	20	19	
ISL OF KAUAI		271	21	17	31	26	19	21	22	20	26	29	20	19	
ISL OF NIIHAU															
CTY OF MAUI		456	50	34	51	49	32	37	35	34	36	26	33	39	
ISL OF LANAI		16	2	2	3	2		1	2		2		2		
ISL OF MAUI		414	45	29	46	46	30	34	30	32	31	25	29	37	
ISL OF MOLOKAI		26	3	3	2	1	2	2	3	2	3	1	2	2	
NON-RESIDENT															
UNKNOWN															

TABLE 28
RESIDENT DEATHS BY PLACE OF OCCURRENCE, AGE, AND SEX
STATE OF HAWAII, 1987

PLACE OF OCCURRENCE	ALL AGES				AGE AND SEX																		
	TOTAL	MALE	FE-MALE	UNK	UNDER 1		1 - 4		5 - 14		15 - 17		18 - 24		25 - 44		45 - 64		65 - 74		75 & OVER		UNK
					M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
STATE OF HAWAII	6147	3631	2515	1	100	64	10	14	22	9	19	7	75	28	317	121	820	461	919	521	1346	1289	5
CTY OF HAWAII	718	438	280		5	2	1	1	2	2	2	2	9	2	35	20	89	46	103	61	192	144	
CITY OF HILO	477	292	185		5			1	2		1		5	1	17	12	53	27	69	39	140	105	
BALANCE OF CTY	241	146	95			2	1			2	1	2	4	1	18	8	36	19	34	22	52	39	
CTY OF HONOLULU	4701	2734	1967		91	59	5	13	18	6	14	4	56	26	233	95	655	372	708	396	951	995	4
CITY-HONOLULU	3674	2115	1559		82	52	2	11	12	5	9	3	33	17	161	79	502	274	560	327	751	790	4
BALANCE OF CTY	1027	619	408		9	7	3	2	6	1	5	1	23	9	72	16	153	98	148	69	200	205	
CTY OF KALAWAO	1	1																	1	-			
CTY OF KAUAI	271	184	86	1	2		2			1		1	4		17	1	32	12	42	24	85	47	1
ISL OF KAUAI	271	184	86	1	2		2			1		1	4		17	1	32	12	42	24	85	47	1
ISL OF NIIHAU																							
CTY OF MAUI	456	274	182		2	3	2		2		3		6		32	5	44	31	65	40	118	103	
ISL OF LANAI	16	9	7												1		1	1	2	1	5	5	
ISL OF MAUI	414	249	165		2	2	1		2		2		6		28	5	40	29	59	38	109	91	
ISL OF MOLOKAI	26	16	10			1	1				1				3		3	1	4	1	4	7	
NON-RESIDENT																							
UNKNOWN																							

TABLE 29
RESIDENT DEATHS BY AGE AND RACE
STATE OF HAWAII, 1987

AGE IN YEARS	ALL RACES				RACE													
	TOTAL	MALE	FEMALE	UNK	CAUCASIAN	HAWN	PT. HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER RACES	UNK
ALL AGES	6147	3631	2515	1	1558	246	821	376	787	1751	63	97	75	55	261	9	43	5
UNDER 1	164	100	64		36	4	58	7	18	15	1	1	4	13	1	1	5	
1 - 4	24	10	14		3		9		5	3		2					2	
5 - 14	31	22	9		9	1	10	1	4	3			1	1			1	
15 - 17	26	19	7		5		13		3	3		1			1			
18 - 19	22	16	6		6		7		4	3		1		1				
20 - 24	81	59	22		28	2	20	2	7	6		3	7	4			2	
25 - 34	177	139	38		57	3	48	6	17	25		5	7	5	5	1		
35 - 44	261	178	83		95	12	49	9	22	45	2	7	2	6	4	1	7	
45 - 54	367	233	134		108	21	74	5	50	76	2	8	8	5	7	1	1	1
55 - 64	914	587	327		228	53	187	53	91	225	8	12	14	6	32	1	3	1
65 - 74	1440	919	521		382	65	158	88	137	439	25	19	22	9	81	2	12	1
75 & OVER	2635	1346	1289		601	85	187	205	428	906	25	38	10	5	132	2	10	1
UNKNOWN	5	3	1	1			1		1	2								1

TABLE 30

MALE RESIDENT DEATHS BY COUNTY AND BY SELECTED CAUSES OF DEATH

STATE OF HAWAII 1987

CAUSES OF DEATH	TOTAL	CAUCASIAN	HAWN	PT. HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER RACES	UNKNOWN
TOTAL DEATHS	3632	921	150	463	212	581	942	41	47	53	43	145	5	26	3
TUBERCULOSIS, ALL FORMS (010-018,137)	8		1		1	2	4					1			
SYPHILIS AND ITS SEQUELAE (090-097)	2		1												
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	82	31	3	14	3	15	12	1	1		1			1	
MALIGNANT NEOPLASM (140-208)	830	200	37	99	43	104	273	9	12	10	6	31	2	4	
DIGESTIVE ORGANS (150-159)	290	45	11	33	17	36	129	3	2	2	1	9	1	1	
RESPIRATORY SYSTEM (160-163)	266	73	15	40	11	37	62	4	3	4	1	13	1	2	
BREAST (174-175)															
GENITAL ORGANS (179-187)	67	20		2	6	13	20		3		1	1		1	
URINARY ORGANS (188-189)	39	12	2	2		3	15				1	4			
LEUKEMIA (204-208)	29	4		6		4	13		1		1				
OTHER (140-208)	139	46	9	16	9	11	34	2	3	4	1	4			
DIABETES MELLITUS (250)	84	10	4	19	3	14	22	2	1	3	2	3		1	
DISEASE OF CIRCULATORY SYSTEM (390-459)	1528	355	70	172	115	283	378	15	19	20	14	80		5	2
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	1219	298	56	148	86	216	288	14	16	15	12	64		4	2
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	8	1		2		2	1			1		1			
HYPERTENSIVE HEART (402,404)	36	1	2	4	1	14	8	1		1	1	3			
ISCHEMIC HEART (410-414)	700	169	25	84	57	116	178	4	8	6	7	43		2	1
OTHER HEART DISEASE (415-417,420-429)	475	127	29	58	28	84	101	9	8	7	4	17		2	1
HYPERTENSION (401,403)	10	4	2			1	1			1		1			
CEREBROVASCULAR DISEASE (430-438)	219	35	8	17	20	51	69	1	3	3	1	10		1	
ARTERIOSCLEROSIS (440)	18	5			3	4	5					1			
OTHER CIRCULATORY (441-459)	62	13	4	7	6	11	15			1	1	4			
INFLUENZA/PNEUMONIA (480-487)	112	21	2	10	5	22	42	1	2	2	1	4			
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	33	4	3	5	1	8	8	2		1		1			
PEPTIC ULCER (531-533)	14	3		1		5	3	1						1	
CIRRHOSIS OF LIVER (571)	57	23	2	4	2	4	17	1	1		1	1		1	
NEPHRITIS AND NEPHROSIS (580-589)	35	5	2		1	8	13	1	1	1		2		1	
COMPLICATIONS OF PREGNANCY CHILDBIRTH & PUERPERIUM (630-676)															
CONGENITAL ANOMALIES (740-759)	32	9	1	7		6	5	1		2				1	
PERINATAL CONDITIONS (760-779)	42	6	1	14	2	3	6		1	2	4			3	
SYMPTOMS & ILL-DEFINED COND (780-799)	37	11	1	14	1	3	3				1		1	1	1
ALL OTHER DISEASES (BLANKS,000-799)	385	117	14	35	18	66	100	6	3	4	3	15	2	2	
ACCIDENTAL DEATHS (800-949)	197	77	3	40	11	21	31	1	2	4	2	3		2	
MOTOR VEHICLE (810-825)	97	47	1	21		12	10	1		3		1		1	
OTHER TRANS. (800-807,826-848)	5	4									1				
POISONING (850-869)	7	2		1		1	3								
FALLS (880-888)	19	3		4	4	3	3		1			1			
FIRES (890-899)	5	1		1			2					1			
DROWNING &-SUBMERSIONS (910)	30	14	1	3	3	1	4		1	1	1			1	
FIREARM MISSILES (922)	2			2											
ADVERSE EFFECTS (930-949)															
OTHER ACCIDENTS (800-949)	32	6	1	8	4	4	9								
SUICIDE (950-959)	97	35	1	16	6	6	21		3	3	2	3		1	
HOMICIDE & LEGAL INTERVENTION (960-978)	35	8	2	9		9	1			1	3	1		1	
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	22	6	2	4		2	3		1		3			1	

TABLE 30A

FEMALE RESIDENT DEATHS BY COUNTY AND BY SELECTED CAUSES OF DEATH

STATE OF HAWAII 1987

CAUSES OF DEATH	TOTAL	CAUCASIAN	HAWN	PT. HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER RACES	UNKNOWN
TOTAL DEATHS	2515	637	96	358	164	206	809	22	50	22	12	116	4	17	2
TUBERCULOSIS, ALL FORMS (010-018,137)	5			2			2			1					
SYPHILIS AND ITS SEQUELAE (090-097)															
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	40	6	2	3	2	7	16					3		1	
MALIGNANT NEOPLASM (140-208)	586	168	19	79	49	43	178	3	14	7	1	19		6	
DIGESTIVE ORGANS (150-159)	176	32	4	20	12	13	76		7	2	1	9			
RESPIRATORY SYSTEM (160-163)	115	33	6	19	11	10	28		2	1		3		2	
BREAST (174-175)	103	44	2	19	9	4	20	1	1	1		1		1	
GENITAL ORGANS (179-187)	48	14	2	7	4	7	11	1		1				1	
URINARY ORGANS (188-189)	20	11	2		1	1	3	1				1			
LEUKEMIA (204-208)	22	5	1	1	3	1	10			1					
OTHER (140-208)	102	29	2	13	9	7	30		4	1		5		2	
DIABETES MELLITUS (250)	94	10	8	19	2	11	31	3				9		1	
DISEASE OF CIRCULATORY SYSTEM (390-459)	1092	243	52	157	71	86	376	12	21	8	3	53	4	5	1
DISEASES OF HEART (390-398,402,404-410-414,415-417,420-429)	793	180	40	119	52	61	259	9	15	7	2	42	3	3	1
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	17	4	1	3		5	2		1					1	
HYPERTENSIVE HEART (402,404)	34	2	2	8	2	3	12		1			3		1	1
ISCHEMIC HEART (410-414)	429	83	24	61	30	35	149	7	6	4	1	25	3		
OTHER HEART DISEASE (415-417,420-429)	313	91	13	47	20	18	96	2	7	3	1	14		1	
HYPERTENSION (401,403)	8	2			1	1	3								
CEREBROVASCULAR DISEASE (430-438)	232	44	8	28	16	21	97	2	4	1	1	9	1		
ARTERIOSCLEROSIS (440)	27	9	1	2	2	1	9		1			1		1	
OTHER CIRCULATORY (441-459)	32	8	3	7		2	8	1	1			1		1	
INFLUENZA/PNEUMONIA (480-487)	111	29	2	8	10	8	43	1	1	2		7			
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	35	12	3	5		5	5	1	2			2			
PEPTIC ULCER (531-533)	9	2	1	1	1	1	3								
CIRRHOSIS OF LIVER (571)	26	5		3	2	1	12		1			2			
NEPHRITIS AND NEPHROSIS (580-589)	17	4	1	2	1	1	8								
COMPLICATIONS OF PREGNANCY CHILDBIRTH & PUERPERIUM (630-676)	1										1				
CONGENITAL ANOMALIES (740-759)	30	7		7	2	8	5				1				
PERINATAL CONDITIONS (760-779)	25	6		11	1	1	2				4				
SYMPTOMS & ILL-DEFINED COND (780-799)	18	8		3	1		3		1			2			
ALL OTHER DISEASES (BLANKS,000-799)	312	97	5	38	18	25	97	2	4	4	2	16		3	1
ACCIDENTAL DEATHS (800-949)	67	17	3	14	3	6	19		3			1		1	
MOTOR VEHICLE (810-825)	31	5	2	8		6	9		1						
OTHER TRANS. (800-807,826-848)	1	1													
POISONING (850-869)	1	1										1			
FALLS (880-888)	15	7		2	2		3							1	
FIRES (890-899)	5	2		2											
DROWNING & SUBMERSIONS (910)	3				1				2						
FIREARM MISSILES (922)															
ADVERSE EFFECTS (930-949)															
OTHER ACCIDENTS (800-949)	11	1	1	2			7								
SUICIDE (950-959)	27	17		2	1	1	5		1			2			
HOMICIDE & LEGAL INTERVENTION (960-978)	11	2		3		2	2								
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	9	4		1			2		2						

TABLE 31

TOTAL RESIDENT DEATHS RECORDED IN HAWAII BY AGE GROUPS FOR SELECTED YEARS
STATE OF HAWAII: 1987, 1977, AND 1967

AGE IN YEARS	1987		1977[a/]		1967[a/]	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
ALL AGES	6,147	100.0	4,349	100.0	3,897	100.0
UNDER 1	164	2.7	196	4.5	250	6.4
1 - 4	24	0.4	30	0.7	53	1.4
5 - 9	17	0.3	17	0.4	25	0.6
10 - 14	14	0.2	20	0.5	22	0.6
15 - 19	48	0.8	51	1.2	49	1.3
20 - 24	81	1.3	87	2.0	57	1.5
25 - 34	177	2.9	169	3.9	96	2.5
35 - 44	261	4.2	167	3.8	222	5.7
45 - 54	367	6.0	459	10.6	440	11.3
55 - 64	914	14.9	746	17.2	636	16.3
65 - 74	1,440	23.4	898	20.6	831	21.3
75 - 84	1,460	23.7	923	21.2	815	20.9
85 & OVER	1,176	19.1	586	13.5	401	10.2
UNKNOWN	4	0.1	--	--	1	0.0

MEDIAN AGE AT DEATH 1987: 72.0 YEARS; 1977: 67.6 YEARS; 1967: 65.1 YEARS

[a/]SOURCE: DEPARTMENT OF HEALTH ANNUAL STATISTICAL REPORT, 1977

TABLE 32
RESIDENT DEATHS BY AGE, SEX, AND MARITAL STATUS
STATE OF HAWAII, 1987

AGE IN YEARS	NUMBER BY MARITAL STATUS																	
	MALE						FEMALE						UNKNOWN					
	TOTAL	SIN	MAR	WID	DIV	UNK	TOTAL	SIN	MAR	WID	DIV	UNK	TOTAL	SIN	MAR	WID	DIV	UNK
ALL AGES	3631	744	2036	502	338	11	2515	246	805	1270	192	2	1					1
UNDER 15	132	131				1	87	87										
15 - 17	19	19					7	7										
18 - 19	16	14	2				6	6										
20 - 24	59	52	7				22	17	4		1							
25 - 34	139	92	32	2	13		38	11	20	1	6							
35 - 44	178	54	86	1	35	2	83	10	53	1	19							
45 - 54	233	37	146	6	42	2	134	12	94	12	16							
55 - 64	587	83	400	27	77		327	20	191	79	37							
65 - 74	919	101	627	99	89	3	521	26	254	190	50	1						
75 - 84	868	107	540	157	62	2	592	30	157	358	46	1						
85 & OVER	478	51	196	210	20	1	697	20	32	628	17							
UNKNOWN	3	3					2			1			1					1

TABLE 33

LEADING CAUSES OF DEATH FOR 1987 AND COMPARATIVE DATA FOR SELECTED YEARS
STATE OF HAWAII, 1987, 1977, 1967

	Rank	1987			1977			1967		
		No.[a]	Rate[b]	Percent	No.[c]	Rate[b]	Percent	No.[c]	Rate[b]	Percent
All Causes	..	6,147	567.8	100.0	4,349	486.1	100.0	3,897	513.0	100.0
Diseases of the Heart (390-398, 402, 404, 410-429)	1	2,012	185.9	32.7	1,323	147.9	30.4	1,278	168.2	32.8
Malignant Neoplasms (140-208)	2	1,416	130.8	23.0	1,121	125.3	25.8	726	95.6	18.6
Cerebrovascular Diseases (430-438)	3	451	41.7	7.3	358	40.0	8.2	323	42.5	8.3
All Accidents (E800-E949)	4	264	24.4	4.3	241	26.9	5.5	293	38.6	7.5
Influenza and Pneumonia (480-487)	5	223	20.6	3.6	150	16.8	3.4	169	22.2	4.3
Diabetes Mellitus (250)	6	178	16.4	2.9	86	9.6	2.0	113	14.9	2.9
Suicide (E950-E959)	7	124	11.4	2.0	111	12.4	2.6	67	8.8	1.7
Other Circulatory Diseases (441-459)	8	94	8.7	1.5	93	10.4	2.1	178	23.4	4.6
Liver Disease and Cirrhosis (571)	9	83	7.7	1.4	74	8.3	1.7	57	7.5	1.5
Bronchitis, Emphysema and Asthma (490-493)	10	68	6.3	1.1	49	5.5	1.1	48[e]	6.6[e]	1.2[d]
Perinatal Conditions (760-779)	11	67	6.2	1.1	90	10.1	2.1	145	19.1	3.7
Congenital Anomalies (740-759)	12	62	5.7	1.0	57	6.4	1.3	80	10.5	2.1
Nephritis and Nephrosis (580-589)	13	52	4.8	0.8	19	2.1	0.4	39	5.1	1.0
Homicide (960-978)	14	46	4.2	0.7	55	6.1	1.3	18	2.5	0.5
All Other Causes		1,007	93.0	16.6	522	58.3	12.1	363	47.8	9.3

[a] Resident deaths only (including resident military personnel)
[b] Rate of death per 100,000 total resident population
[c] Source: Annual Statistical Report of the Health Department
[d] Number and death are based on civilian population exclusive of military personnel stationed in Hawaii
[e] Does not include Emphysema

TABLE 34

RESIDENT DEATHS IN HAWAII, LEADING CAUSES OF DEATH FOR AGE GROUPS

STATE OF HAWAII 1987

ALL AGE GROUPS	Total	Rate per 10,000 Resident Population	Male		Female	
			Number	Percent	Number	Percent
Total	6,147	56.8	3,632	100.0	2,515	100.0
1. Diseases of the Heart	2,012	18.6	1,219	33.6	793	31.5
2. Malignant Neoplasm	1,416	13.1	830	22.8	586	23.3
3. Cerebrovascular Disease	451	4.2	219	6.0	232	9.2
4. Influenza and Pneumonia	223	2.1	112	3.1	111	4.4
5. Diabetes Mellitus	178	1.6	84	2.3	94	3.8
6. Other Accidents (less M.V.)	136	1.2	100	2.7	36	1.4
7. Motor Vehicle Accidents	128	1.2	97	2.7	31	1.2
8. Suicide	124	1.1	97	2.7	27	1.1
9. Other Circulatory Diseases	94	0.9	62	1.7	32	1.3
10. Cirrhosis of the Liver	83	0.8	57	1.6	26	1.0
11. Bronchitis, Emphysema, Asthma	68	0.6	33	0.9	35	1.4
All Other Causes	1,234	11.4	722	19.9	512	20.4

	Total	Male	Female
Female			
UNDER 1 YEAR OLD - TOTAL	164	100	64
1. Perinatal Conditions	63	39	24
2. Congenital Anomalies	45	22	23
3. Influenza and Pneumonia	7	2	5
All Other Causes	49	37	12
1 TO 4 YEAR OLD - TOTAL	24	10	14
1. Accidents (less Motor V.)	8	4	4
2. Congenital Anomalies	6	1	5
3. Malignant Neoplasm	3	1	2
All Other Causes	7	4	3
5-14 YEAR OLD - TOTAL	31	22	9
1. Motor Vehicle Accidents	7	4	3
2. Malignant Neoplasm	6	5	1
3. Accidents (less Motor V.)	5	3	2
All Other Causes	13	10	3

	Total	Male	
15-24 YEAR OLD - TOTAL	129	94	35
1. Motor Vehicle Accidents	43	35	8
2. Accidents (less Motor V.)	18	16	2
3. Suicide	17	14	3
4. Homicide & Legal Interv.	14	12	2
5. Malignant Neoplasm	8	4	4
6. Diseases of the Heart	4	3	1
All Other Causes	25	10	15
25-34 YEAR OLDS - TOTAL	177	139	38
1. Motor Vehicle Accidents	26	22	4
2. Suicide	24	21	3
3. Malignant Neoplasm	18	10	8
3. Accident (less Motor V.)	18	17	1
5. Diseases of the Heart	13	12	1
6. Homicide & Legal Interv.	9	6	3
7. Cerebrovascular Disease	5	2	3
8. Diabetes Mellitus	4	1	3
All Other Causes	60	48	12

TABLE 34 (Cont'd.)

RESIDENT DEATHS IN HAWAII, LEADING CAUSES OF DEATH FOR AGE GROUPS

STATE OF HAWAII 1987

	Total	Male	Female
35-44 YEAR OLD - TOTAL	261	178	83
1. Malignant Neoplasm	68	29	39
2. Diseases of the Heart	51	43	8
3. Suicide	26	16	11
4. Motor Vehicle Accidents	19	16	3
5. Accidents (less Motor V.)	16	15	1
6. Cerebrovascular Disease	14	6	8
7. Homicide & Legal Interv.	7	6	1
8. Cirrhosis of the Liver	6	6	0
All Other Causes	53	41	12

	Total	Male	Female
65-74 YEAR OLD - TOTAL	1,440	919	521
1. Diseases of the Heart	501	335	166
2. Malignant Neoplasm	467	288	179
3. Cerebrovascular Diseases	94	51	43
4. Diabetes Mellitus	56	32	24
5. Influenza & Pneumonia	29	21	8
6. Other Circulatory Diseases	27	16	11
7. Bronchitis, Emphysema, Asthma	20	12	8
8. Cirrhosis of the Liver	19	12	7
9. Suicide	17	17	0
10. Accidents (less Motor V.)	12	8	4
All Other Causes	198	127	71

	Total	Male	Female
45-54 YEAR OLD - TOTAL	367	233	134
1. Diseases of the Heart	115	86	29
2. Malignant Neoplasm	114	67	47
3. Cerebrovascular Diseases	19	7	12
4. Cirrhosis of the Liver	14	10	4
5. Diabetes Mellitus	10	8	2
6. Influenza & Pneumonia	8	2	6
6. Bronchitis, Emphysema, Asthma	8	3	5
6. Motor Vehicle Accidents	8	5	3
9. Suicide	7	5	2
10. Homicide & Legal Interv.	5	2	3
All Other Causes	59	38	21

	Total	Male	Female
75-84 YEAR OLD - TOTAL	1,460	868	592
1. Diseases of the Heart	552	333	219
2. Malignant Neoplasm	290	185	105
3. Cerebrovascular Diseases	139	77	62
4. Influenza & Pneumonia	65	37	28
5. Diabetes Mellitus	45	18	27
6. Other Circulatory Diseases	25	16	9
7. Bronchitis, Emphysema, Asthma	20	11	9
8. Accidents (less Motor V.)	17	11	6
9. Nephritis & Nephrosis	15	11	4
10. Arteriosclerosis	14	4	10
All Other Causes	278	165	113

	Total	Male	Female
55-64 YEAR OLD - TOTAL	914	587	327
1. Diseases of the Heart	307	223	84
2. Malignant Neoplasm	303	172	131
3. Cerebrovascular Diseases	47	28	19
4. Diabetes Mellitus	32	16	16
5. Cirrhosis of the Liver	30	19	11
6. Accidents (less Motor V.)	19	14	5
7. Other Circulatory Diseases	16	14	2
8. Influenza & Pneumonia	13	8	5
9. Suicide	12	7	5
10. Motor Vehicle Accidents	10	9	1
All Other Causes	125	77	48

	Total	Male	Female
OVER 84 YEARS OLD - TOTAL	1,176	478	698
1. Diseases of the Heart	468	184	284
2. Malignant Neoplasm	139	69	70
3. Cerebrovascular Diseases	132	47	85
4. Influenza & Pneumonia	93	36	57
5. Diabetes Mellitus	27	8	19
6. Arteriosclerosis	22	7	15
7. Other Circulatory Diseases	16	6	10
8. Nephritis & Nephrosis	15	7	8
8. Accidents (less Motor V.)	15	8	7
10. Bronchitis, Emphysema, Asthma	10	1	9
All Other Causes	239	105	134

TABLE 35
TOTAL RESIDENT DEATHS BY COUNTY AND BY SELECTED CAUSES OF DEATH
STATE OF HAWAII 1987

	STATE TOTAL[a]		HAWAII COUNTY		HONOLULU COUNTY		KAUAI COUNTY		MAUI COUNTY	
	NUMBER	RATE[b]	NUMBER	RATE[b]	NUMBER	RATE[b]	NUMBER	RATE[b]	NUMBER	RATE[b]
TOTAL DEATHS	6147	567.8	785	686.0	4534	545.9	304	639.1	522	580.6
TUBERCULOSIS, ALL FORMS (010-018,137)	13	1.2	1	0.9	10	1.2			2	2.2
SYPHILIS AND ITS SEQUELAE (090-097)	2	0.2	1	0.9	1	0.1				
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	122	11.3	13	11.4	99	11.9	5	10.5	5	5.5
MALIGNANT NEOPLASM (140-208)	1416	130.8	166	145.1	1048	126.2	73	153.5	129	143.5
DIGESTIVE ORGANS (150-159)	466	43.0	51	44.6	348	41.9	30	63.1	37	41.2
RESPIRATORY SYSTEM (160-163)	381	35.2	40	35.0	284	34.2	20	42.0	37	41.2
BREAST (174-175)	103	9.5	12	10.5	75	9.0	3	6.3	13	14.5
GENITAL ORGANS (179-187)	115	10.6	18	15.7	83	10.0	4	8.4	10	11.1
URINARY ORGANS (188-189)	59	5.4	9	7.9	34	4.1	6	12.6	10	11.1
LEUKEMIA (204-208)	51	4.7	6	5.2	38	4.6	3	6.3	4	4.4
OTHER (140-208)	241	22.3	30	26.2	186	22.4	7	14.7	18	20.0
DIABETES MELLITUS (250)	178	16.4	20	17.5	140	16.8	4	8.4	14	15.6
DISEASE OF CIRCULATORY SYSTEM (390-459)	2620	242.0	339	296.2	1929	232.2	133	279.6	217	241.4
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	2012	185.9	263	229.8	1490	179.4	99	208.1	159	176.9
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	25	2.3	5	4.4	18	2.2			2	2.2
HYPERTENSIVE HEART (402,404)	70	6.5	8	7.0	48	5.8	9	18.9	5	5.5
ISCHEMIC HEART (410-414)	1129	104.3	181	158.2	804	96.8	54	113.5	89	99.0
OTHER HEART DISEASE (415-417,420-429)	788	72.8	69	60.3	620	74.6	36	75.7	63	70.0
HYPERTENSION (401,403)	18	1.7	2	1.7	11	1.3	2	4.2	2	2.2
CEREBROVASCULAR DISEASE (430-438)	451	41.7	55	48.1	332	40.0	22	46.2	42	46.7
ARTERIOSCLEROSIS (440)	45	4.2	5	4.4	35	4.2	3	6.3	2	2.2
OTHER CIRCULATORY (441-459)	94	8.7	14	12.2	61	7.3	7	14.7	12	13.3
INFLUENZA/PNEUMONIA (480-487)	223	20.6	26	22.7	164	19.7	10	21.0	23	25.6
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	68	6.3	16	14.0	44	5.3	4	8.4	4	4.4
PEPTIC ULCER (531-533)	23	2.1	4	3.5	14	1.7	1	2.1	4	4.4
CIRRHOSIS OF LIVER (571)	83	7.7	11	9.6	58	7.0	8	16.8	6	6.7
NEPHRITIS AND NEPHROSIS (580-589)	52	4.8	9	7.9	39	4.7	2	4.2	2	2.2
COMPLICATIONS OF PREGNANCY CHILDBIRTH & PUERPERIUM (630-676)	1	0.1			1	0.1				
CONGENITAL ANOMALIES (740-759)	62	5.7	9	7.9	47	5.6	1	2.1	5	5.5
PERINATAL CONDITIONS (760-779)	67	6.2	4	3.5	57	6.9	1	2.1	5	5.5
SYMPTOMS & ILL-DEFINED COND (780-799)	55	5.1	5	4.4	42	5.0	6	12.6	2	2.2
ALL OTHER DISEASES (BLANKS,000-799)	697	64.4	81	70.8	528	63.6	27	56.7	61	67.8
ACCIDENTAL DEATHS (800-949)	264	24.4	48	41.9	163	19.2	24	50.4	29	32.2
MOTOR VEHICLE (810-825)	128	11.8	31	27.1	70	8.4	13	27.3	14	15.6
OTHER TRANS. (800-807,826-848)	6	0.6			5	0.6	1	2.1		
POISONING (850-869)	8	0.7	2	1.7	5	0.6	1	2.1		
FALLS (880-888)	34	3.1	5	4.4	24	2.9	2	4.2	3	3.3
FIRES (890-899)	10	0.9	1	0.9	3	0.4	3	6.3	3	3.3
DROWNING & SUBMERSIONS (910)	33	3.0	4	3.5	21	2.5	3	6.3	5	5.5
FIREARM MISSILES (922)	2	0.2			2	0.2				
ADVERSE EFFECTS (930-949)										
OTHER ACCIDENTS (800-949)	43	4.0	5	4.4	33	4.0	1	2.1	4	4.4
SUICIDE (950-959)	124	11.4	14	12.2	96	11.6	5	10.5	9	10.0
HOMICIDE & LEGAL INTERVENTION (960-978)	46	4.2	11	9.6	34	4.1			1	1.1
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	31	2.9	7	6.1	20	2.4	1	2.1	4	4.4

[a] INCLUDES KALAWAO
[b] RATE PER 100,000 TOTAL RESIDENT POPULATION (MAUI COUNTY INCLUDES KALAUPAPA)

TABLE 35A

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
STATE OF HAWAII 1987

CAUSES OF DEATH	ALL AGES		UNDER 1 YR.		1-4 YRS.		5-9 YRS.		10-14 YRS.		15-17 YRS.		18-19 YRS.		20-24 YRS.		25-29 YRS.		30-34 YRS.		35-39 YRS.	
UNKNOWN SEX IN MALE CATEG.	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	3632	2515	100	64	10	14	12	5	10	4	19	7	16	6	59	22	71	12	68	26	96	33
TUBERCULOSIS, ALL FORMS (010-018,137)	8	5		1																		
SYPHILIS AND ITS SEQUELAE (090-097)	2																					
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	82	40	3	1	2					1		1			1	1	3	1	11	1	13	1
MALIGNANT NEOPLASM (140-208)	830	586			1	2	3		2	1	1		1		2	4	4	1	6	7	13	9
DIGEST. ORGANS (150-159)	290	176															1		2		5	1
RESPIRATORY SYSTEM (160-163)	266	115																	1		1	
BREAST (174-175)		103														1				2		2
GENITAL ORGANS (179-187)	67	48													2					3		3
URINARY ORGANS (188-189)	39	20																			1	1
LEUKEMIA (204-208)	29	22				1	1		1	1	1		1				1		1		1	1
OTHER (140-208)	139	102			1	1	2		1							3	2	1	2	2	5	1
DIABETES MELLITUS (250)	84	94														1		1	1	2	1	
DISEASE OF CIRCULATORY SYSTEM (390-459)	1528	1092	2					1							3	1	8		7	4	22	6
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	1219	793						1							3	1	7		5	1	16	3
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	8	17															1					
HYPERTENSIVE HEART (402,404)	36	34																				
ISCHEMIC HEART (410-414)	700	429													2		1		1	1	7	
OTHER HEART DISEASE (415-417,420-429)	475	313						1							1	1	5		4		9	3
HYPERTENSION (401,403)	10	8																				
CEREBROVASCULAR DISEASE (430-438)	219	232	1																2	3	3	3
ARTERIOSCLEROSIS (440)	18	27																				
OTHER CIRCULATORY (441-459)	62	32	1														1				3	
INFLUENZA/PNEUMONIA (480-487)	112	111	2	5		1	1				1						1		1		2	1
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	33	35	1						1		2							1				
PEPTIC ULCER (531-533)	14	9														1						
CIRRHOSIS OF LIVER (571)	57	26																	1		5	
NEPHRITIS AND NEPHROSIS (580-589)	35	17	1																	1	1	
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)		1														1						
CONGENITAL ANOMALIES (740-759)	32	30	22	23	1	5	1		1								1		2		2	
PERINATAL CONDITIONS (760-779)	42	25	39	24		1	1															
SYMPTOMS & ILL-DEFINED COND (780-799)	37	18	18	8		1									1		3		1		1	1
ALL OTHER DISEASES (BLANKS,000-799)	385	312	8	2	1		3	1			1			2	1	4	5	3	6	3	1	3
ACCIDENTAL DEATHS (800-949)	197	67	3		4	4	3	3	4	2	11	3	7	1	33	6	24	2	15	4	20	2
MOTOR VEHICLE (810-825)	97	31					1	1	3	2	9	3	7	1	19	4	17	1	5	3	11	2
OTHER TRANS. (800-807,826-848)	5	1													1			1			2	
POISONING (850-869)	7	1														1	3		2			
FALLS (880-888)	19	15	1												2				1		1	
FIRES (890-899)	5	5			2	1		2														
DROWNING & SUBMERSIONS (910)	30	3			1	2	2		1		1				7		2		4		3	
FIREARM MISSILES (922)	2										1	-					1					
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)	32	11	2		1	1									4	1	1		3	1	3	
SUICIDE (950-959)	97	27							1		2	1	3	2	9		13		8	3	11	7
HOMICIDE & LEGAL INTERVENTION (960-978)	35	11	1		1				1		1	2	2		9		2	2	4	1	2	1
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	22	9											3	1		3	7	1	5		2	2

TABLE 35A (CONT'D)

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
STATE OF HAWAII 1987

UNKNOWN SEX IN MALE CATEG.	40-44 YRS.		45-49 YRS.		50-54 YRS.		55-59 YRS.		60-64 YRS.		65-69 YRS.		70-74 YRS.		75-79 YRS.		80-84 YRS.		OVER 84		UN-KNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS -	82	50	98	52	135	82	254	134	333	193	427	236	492	285	461	289	407	303	478	698	4	
TUBERCULOSIS, ALL FORMS (010-018,137)					1			1		1	2	1	2				1	1	2			
SYPHILIS AND ITS SEQUELAE (090-097)									1								1					
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	8		7	1	6	1	4	3	2	3	1	3	6	2	1	6	5	6	9	8		
MALIGNANT NEOPLASM (140-208)	16	30	23	17	44	30	75	56	97	75	147	88	141	91	115	63	70	42	69	70		
DIGEST. ORGANS (150-159)	10	7	9	2	15	6	23	11	33	27	44	31	46	32	52	18	27	14	23	27		
RESPIRATORY SYSTEM (160-163)	2	6	10	2	21	5	26	18	46	17	57	23	53	17	21	17	14	2	14	8		
BREAST (174-175)		9		10		13		8		8		13		16		5		8		8		
GENITAL ORGANS (179-187)		2	1			2	1	7	3	7	7	4	14	6	18	3	10	5	11	6		
URINARY ORGANS (188-189)	1	2			1		7	1	2	1	6	2	6	3	6	3	4	4	5	3		
LEUKEMIA (204-208)		1			1		3	3	2	2	6	7	3	2	3	2	4	1		1		
OTHER (140-208)	3	3	3	3	6	4	15	8	11	13	27	8	19	15	15	15	11	8	16	17		
DIABETES MELLITUS (250)		2	4		4	2	7	10	9	6	14	9	18	15	9	10	9	17	8	19		
DISEASE OF CIRCULATORY SYSTEM (390-459)	30	10	45	21	56	21	117	44	153	64	184	93	226	129	231	134	200	167	244	397		
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	27	5	41	15	45	14	101	32	122	52	155	71	180	95	171	99	162	120	184	284		
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	1	1				3		2	3	1	1	3		4	2	2		1				
HYPERTENSIVE HEART (402,404)			1		2	1	2	2	5	1	5	1	6	3	6	2	5	10	4	14		
ISCHEMIC HEART (410-414)	12	2	23	6	22	1	55	15	67	31	97	45	97	63	109	54	95	67	112	144		
OTHER HEART DISEASE (415-417,420-429)	14	2	17	9	21	9	44	13	47	19	52	22	77	25	54	41	62	42	68	126		
HYPERTENSION (401,403)			1		1	1	2	1			3	2	2		1			1		3		
CEREBROVASCULAR DISEASE (430-438)	3	5	3	6	4	6	7	10	21	9	23	16	28	27	49	29	28	33	47	85		
ARTERIOSCLEROSIS (440)					1		1		2	2			3		2	2	2	8	7	15		
OTHER CIRCULATORY (441-459)					5		6	1	8	1	3	4	13	7	8	4	8	5	6	10		
INFLUENZA/PNEUMONIA (480-487)				2	2	4	2	2	6	3	9	2	12	6	18	11	19	17	36	57		
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)			3	1		4		1	2	2	4	3	8	5	6	7	5	2	1	5		
PEPTIC ULCER (531-533)									2	1	1		3	2	2	1	2	2	3	2	1	
CIRRHOSIS OF LIVER (571)	1		4	1	6	3	10	3	9	8	9	6	3	1	4	2	2	1	3	1		
NEPHRITIS AND NEPHROSIS (580-589)			1	1	1		1		4	2	1		7	1	6	3	5	1	7	8		
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)							1				1			1						1		
CONGENITAL ANOMALIES (740-759)																					2	
PERINATAL CONDITIONS (760-779)							1	1	2		1		1		2	3			2	3	1	
SYMPTOMS & ILL-DEFINED COND (780-799)	2	1	1																			
ALL OTHER DISEASES (BLANKS,000-799)	3	1	3	2	8	10	17	8	31	22	35	28	54	29	58	39	71	40	79	115		
ACCIDENTAL DEATHS (800-949)	11	2	3	3	3	3	11	3	12	3	5	2	6	2	2	8	11	6	9	8		
MOTOR VEHICLE (810-825)	5	1	2	1	3	2	4	1	5		1		2			4	2	4	1	1		
OTHER TRANS. (800-807,826-848)	1		1																			
POISONING (850-869)	1										1											
FALLS (880-888)				1			2	2	2	2	1	1	2	1	1	2	3		3	6		
FIRES (890-899)									1			1				1	1		1			
DROWNING & SUBMERSIONS (910)	3	1					2		1		1		1				1					
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)	1			1		1	3		3	1	1		1	1	1	1	4	2	4	1		
SUICIDE (950-959)	5	4	3	2	2		5	2	2	3	12		5		6	2	4	1	6			
HOMICIDE & LEGAL INTERVENTION (960-978)	4		1	1	1	2	2		1		1	1		1			2					
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	2				1	2	1								1							

TABLE 35B

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
HONOLULU COUNTY 1987

CAUSES OF DEATH	ALL AGES		UNDER 1 YR.		1-4 YRS.		5-9 YRS.		10-14 YRS.		15-17 YRS.		18-19 YRS.		20-24 YRS.		25-29 YRS.		30-34 YRS.		35-39 YRS.	
UNKNOWN SEX IN MALE CATEG.	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	2637	1897	82	52	4	12	7	4	6	2	13	4	9	5	43	18	47	8	39	20	69	22
TUBERCULOSIS, ALL FORMS (010-018,137)	6	4		1																		
SYPHILIS AND ITS SEQUELAE (090-097)	1																					
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	67	32	3	1	1					1		1				1	3	1	9	1	9	
MALIGNANT NEOPLASM (140-208)	605	443			1	2	2		1	1	1		1		2	4	3	1	4	4	12	6
DIGEST. ORGANS (150-159)	217	131															1		1		5	1
RESPIRATORY SYSTEM (160-163)	189	95														1			1		1	
BREAST (174-175)		75													2				2		1	
GENITAL ORGANS (179-187)	47	36																			1	1
URINARY ORGANS (188-189)	23	11																				1
LEUKEMIA (204-208)	20	18				1	1		1	1	1		1			3	2	1	2	1	5	1
OTHER (140-208)	109	77			1	1	1									1		1	1	1	1	
DIABETES MELLITUS (250)	69	71													3		6		3	4	15	4
DISEASE OF CIRCULATORY SYSTEM (390-459)	1113	816	2					1														
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	899	591						1							3		5		3	1	10	2
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	5	13															1					
HYPERTENSIVE HEART (402,404)	26	22													2					1	2	
ISCHEMIC HEART (410-414)	486	318																				
OTHER HEART DISEASE (415-417,420-429)	382	238						1							1		4		3		8	2
HYPERTENSION (401,403)	5	6																		3	3	2
CEREBROVASCULAR DISEASE (430-438)	158	174	1																			
ARTERIOSCLEROSIS (440)	13	22															1				2	
OTHER CIRCULATORY (441-459)	38	23	1																		2	1
INFLUENZA/PNEUMONIA (480-487)	79	85	2	3		1					1											
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	20	24	1						1		1											
PEPTIC ULCER (531-533)	8	6																			4	
CIRRHOSIS OF LIVER (571)	41	17																		1	1	
NEPHRITIS AND NEPHROSIS (580-589)	26	13																				
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)		1														1						
CONGENITAL ANOMALIES (740-759)	23	24	16	17	1	5	1										1		2		1	
PERINATAL CONDITIONS (760-779)	35	22	32	21		1	1								1		2		1		1	1
SYMPTOMS & ILL-DEFINED COND (780-799)	27	15	14	7																		
ALL OTHER DISEASES (BLANKS,000-799)	283	245	8	2			1	1						1	1	4	4	1	5	3	1	2
ACCIDENTAL DEATHS (800-949)	121	42	2		1	3	2	2	2		9	1	3	1	23	5	13	2	5	2	10	1
MOTOR VEHICLE (810-825)	53	17					1	1	2		8	1	3	1	14	3	8	1	1	1	5	1
OTHER TRANS. (800-807,826-848)	4	1													1			1			2	
POISONING (850-869)	4	1														1	1		1			
FALLS (880-888)	15	9	1												1						1	
FIRES (890-899)	1	2						1														
DROWNING & SUBMERSIONS (910)	18	3				2	1				1				5		2		1			
FIREARM MISSILES (922)	2																1					
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)	24	9	1		1	1			1				1	2	2	1	1		2	1	2	
SUICIDE (950-959)	73	23							1						6		9		6	3	10	5
HOMICIDE & LEGAL INTERVENTION (960-978)	27	7	1						1		1	2	1		7		2	1	2	1	1	1
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	13	7											3	1		2	4	1	1		1	1

TABLE 35B (CONT'D)

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
HONOLULU COUNTY 1987

UNKNOWN SEX IN MALE CATEG.	40-44 YRS.		45-49 YRS.		50-54 YRS.		55-59 YRS.		60-64 YRS.		65-69 YRS.		70-74 YRS.		75-79 YRS.		80-84 YRS.		OVER 84		UN-KNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	70	40	78	39	110	64	196	100	251	151	321	178	359	203	316	213	289	235	326	527	2	
TUBERCULOSIS, ALL FORMS (010-018,137)					1			1		1	1	1	2				1		1			
SYPHILIS AND ITS SEQUELAE (090-097)									1													
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	8		5	1	6		3	1	2	3		3	5	2	1	5	4	5	8	6		
MALIGNANT NEOPLASM (140-208)	12	26	21	11	36	24	61	41	75	59	115	64	97	61	73	47	43	33	45	59		
DIGEST. ORGANS (150-159)	9	6	8	2	13	6	18	6	25	22	33	22	33	22	38	10	18	12	15	22		
RESPIRATORY SYSTEM (160-163)	1	6	9	1	17	3	22	15	35	12	43	20	33	13	9	15	9	2	9	8		
BREAST (174-175)		8		5		11		7		6		6		10		4		7		8		
GENITAL ORGANS (179-187)		1	1			2		5	2	6	6	4	10	3	12	2	5	5	9	5		
URINARY ORGANS (188-189)		2			1		5		2		4		3	2	2	1	2	2	3	3		
LEUKEMIA (204-208)					1		2	3		2	5	5	2	2	3	2	3			1		
OTHER (140-208)	2	3	3	3	4	2	14	5	11	11	24	7	16	9	9	13	6	5	9	12		
DIABETES MELLITUS (250)		2	4		2	1	4	6	8	5	14	6	15	10	6	9	7	13	7	16		
DISEASE OF CIRCULATORY SYSTEM (390-459)	27	6	34	17	45	19	90	37	115	52	131	68	160	95	163	96	143	128	176	289		
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	24	3	31	13	39	12	78	27	91	43	112	52	128	69	123	71	116	93	136	204		
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	1	1				3		1	2	1		3		2	1	1		1				
HYPERTENSIVE HEART (402,404)			1		2		2	1	3	1	5		4	1	4	1	3	7	2	11		
ISCHEMIC HEART (410-414)	10	1	15	5	17	1	37	12	44	24	67	33	64	46	74	36	68	55	86	104		
OTHER HEART DISEASE (415-417,420-429)	13	1	15	8	20	8	39	13	42	17	40	16	60	20	44	33	45	30	48	89		
HYPERTENSION (401,403)			1		1	1	1	1			1	1			1			1		2		
CEREBROVASCULAR DISEASE (430-438)	3	3	2	4	3	6	5	9	17	6	16	12	21	20	35	19	21	25	31	65		
ARTERIOSCLEROSIS (440)							1		2	2			3		1	2	2	7	4	11		
OTHER CIRCULATORY (441-459)					2		5		5	1	2	3	8	6	3	4	4	2	5	7		
INFLUENZA/PNEUMONIA (480-487)				1	2	3	2	1	6	3	8	2	7	3	14	10	16	14	19	43		
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)			2	1		4		1	1	2	1	3	7	1	4	5	2	2		5		
PEPTIC ULCER (531-533)									1	1	1		2	2	1		1	2	2	1		
CIRRHOSIS OF LIVER (571)	1		3		5	3	6	2	6	7	9	5	2		2		2		1			
NEPHRITIS AND NEPHROSIS (580-589)			1	1	1		1		4	1	1		5	1	4	1	4	1	3	7		
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)																						
CONGENITAL ANOMALIES (740-759)							1							1						1		
PERINATAL CONDITIONS (760-779)																					2	
SYMPTOMS & ILL-DEFINED COND (780-799)	2		1					1	1		1		1		1	3			1	3		
ALL OTHER DISEASES (BLANKS,000-799)	2	1	3	2	7	7	13	5	25	14	23	24	45	24	41	32	52	32	52	90		
ACCIDENTAL DEATHS (800-949)	8	1	1	2	1	1	8	2	5	1	3	2	6	2	2	3	10	4	7	7		
MOTOR VEHICLE (810-825)	2		1	1	1	1	2	1	1				2			1	1	3	1	1		
OTHER TRANS. (800-807,826-848)	1																					
POISONING (850-869)	1										1											
FALLS (880-888)							2	1	1			1	2	1	1	1	3		3	5		
FIRES (890-899)												1					1					
DROWNING & SUBMERSIONS (910)	3	1					2		1		1		1				1					
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)	1			1			2		2	1	1		1	1	1	1	4	1	3	1		
SUICIDE (950-959)	5	4	2	2	2		4	2		2	12		5		3	2	3	1	4			
HOMICIDE & LEGAL INTERVENTION (960-978)	4		1	1	1		2		1		1			1			1					
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	1				1	2	1								1							

TABLE 35C

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
HAWAII COUNTY 1987

CAUSES OF DEATH	ALL AGES		UNDER 1 YR.		1-4 YRS.		5-9 YRS.		10-14 YRS.		15-17 YRS.		18-19 YRS.		20-24 YRS.		25-29 YRS.		30-34 YRS.		35-39 YRS.	
UNKNOWN SEX IN MALE CATEG.	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	475	310	9	6	2	2	2		2	2	3	3	3		7	4	9	3	18	5	8	6
TUBERCULOSIS, ALL FORMS (010-018,137)	1																					
SYPHILIS AND ITS SEQUELAE (090-097)	1																					
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	8	5			1														1		1	
MALIGNANT NEOPLASM (140-208)	100	66																	1	2	1	1
DIGEST. ORGANS (150-159)	33	18																				
RESPIRATORY SYSTEM (160-163)	30	10																		1		
BREAST (174-175)		12																				1
GENITAL ORGANS (179-187)	10	8																				
URINARY ORGANS (188-189)	6	3																	1		1	
LEUKEMIA (204-208)	5	1																				
OTHER (140-208)	16	14																		1		
DIABETES MELLITUS (250)	5	15														1	2		2		2	1
DISEASE OF CIRCULATORY SYSTEM (390-459)	201	138																				
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	161	102														1	2		2		1	1
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	2	3																				
HYPERTENSIVE HEART (402,404)	2	6															1		1		1	
ISCHEMIC HEART (410-414)	116	65																				
OTHER HEART DISEASE (415-417,420-429)	41	28														1	1		1			1
HYPERTENSION (401,403)	1	1																				
CEREBROVASCULAR DISEASE (430-438)	26	29																				
ARTERIOSCLEROSIS (440)	4	1																			1	
OTHER CIRCULATORY (441-459)	9	5																				
INFLUENZA/PNEUMONIA (480-487)	13	13		1							1							1				
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	8	8														1						
PEPTIC ULCER (531-533)	2	2																			1	
CIRRHOSIS OF LIVER (571)	7	4																				
NEPHRITIS AND NEPHROSIS (580-589)	5	4																				
COMPLICATIONS OF PREG. CHILDBIRTH & PUERPERIUM (630-676)									1													
CONGENITAL ANOMALIES (740-759)	6	3	4	3																		
PERINATAL CONDITIONS (760-779)	3	1	3	1																		
SYMPTOMS & ILL-DEFINED COND (780-799)	3	2	2	1		1												1	1			1
ALL OTHER DISEASES (BLANKS,000-799)	53	28						2							5	1	5		6	2	2	1
ACCIDENTAL DEATHS (800-949)	34	14				1			1	2	1	2	1		3	1	4		1	2	1	1
MOTOR VEHICLE (810-825)	20	11								2	1	2	1		3	1	4		1	2	1	1
OTHER TRANS. (800-807,826-848)																	1		1			
POISONING (850-869)	2																		1			
FALLS (880-888)	3	2																				
FIRES (890-899)		1				1													3			
DROWNING & SUBMERSIONS (910)	4								1													
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)															2						1	
OTHER ACCIDENTS (800-949)	5										1	1	1				1		2			1
SUICIDE (950-959)	12	2											1		2			1	2		1	
HOMICIDE & LEGAL INTERVENTION (960-978)	8	3			1																	
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	5	2														1	1		3			1

TABLE 35C (CONT'D)

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
HAWAII COUNTY 1987

UNKNOWN SEX IN MALE CATEG.	40-44 YRS.		45-49 YRS.		50-54 YRS.		55-59 YRS.		60-64 YRS.		65-69 YRS.		70-74 YRS.		75-79 YRS.		80-84 YRS.		OVER 84		UN-KNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	5	7	12	7	14	10	29	22	40	16	50	30	63	34	68	38	58	33	73	82		
TUBERCULOSIS, ALL FORMS (010-018,137)																			1			
SYPHILIS AND ITS SEQUELAE (090-097)																	1					
OTHER INFECTIVE & PARASITIC DISEASES (000-139)			1				1	2					1				1	1	1	2		
MALIGNANT NEOPLASM (140-208)	1	3	2	2	4	4	8	9	9	8	13	11	14	9	20	8	16	3	11	6		
DIGEST. ORGANS (150-159)			1				3	4	5	2	5	4	6	1	4	4	6		3	3		
RESPIRATORY SYSTEM (160-163)			1		2	2	3		4	3	6	2	4	2	6	1	2		2			
BREAST (174-175)		1		2				1		1		5		1								
GENITAL ORGANS (179-187)		1						2					1	2	4	1	4		1			
URINARY ORGANS (188-189)							1			1	1		1		2	1	1	1				
LEUKEMIA (204-208)		1					1						1				1					
OTHER (140-208)	1				2	2		2		1	1		1	3	4	1	2	2	5	3		
DIABETES MELLITUS (250)					1	1		3	1			2	1	2	2	1		3		2		
DISEASE OF CIRCULATORY SYSTEM (390-459)		3	7	3	8	1	13	5	20	5	30	14	35	15	26	20	25	21	31	49		
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)		2	6	2	5	1	10	3	16	4	27	10	31	12	18	14	21	15	22	37		
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)								1	1		1			1		1						
HYPERTENSIVE HEART (402,404)								1				1		2	1			1	1	1		
ISCHEMIC HEART (410-414)		1	4	1	4		9	1	15	3	17	7	23	8	14	10	14	9	13	25		
OTHER HEART DISEASE (415-417,420-429)		1	2	1	1	1	1			1	9	2	8	1	3	3	7	5	8	11		
HYPERTENSION (401,403)							1					1										
CEREBROVASCULAR DISEASE (430-438)		1	1	1	1		1	1	2	1	3	2	3	2	6	6	3	5	6	10		
ARTERIOSCLEROSIS (440)					1										1				2	1		
OTHER CIRCULATORY (441-459)					1		1	1	2			1	1	1	1		1	1	1	1		
INFLUENZA/PNEUMONIA (480-487)								1			1		2	2	2		1	2	7	7		
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)									1		1		1	2	2	2	1		1	3		
PEPTIC ULCER (531-533)															1	1	1					
CIRRHOSIS OF LIVER (571)				1			2	1	2				1			2			1			
NEPHRITIS AND NEPHROSIS (580-589)										1			2		1	2			2	1		
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)																						
CONGENITAL ANOMALIES (740-759)											1											
PERINATAL CONDITIONS (760-779)																						
SYMPTOMS & ILL-DEFINED COND (780-799)							1															
ALL OTHER DISEASES (BLANKS,000-799)	1				1	2	2	1	1	2	2	2	6	4	11	1	9	3	17	11		
ACCIDENTAL DEATHS (800-949)	2	1	1	1		1	1		5		2					1	1		1	1		
MOTOR VEHICLE (810-825)	2	1	1			1	1		3		1					1	1					
OTHER TRANS. (800-807,826-848)																						
POISONING (850-869)																						
FALLS (880-888)				1					1		1									1		
FIRES (890-899)																						
DROWNING & SUBMERSIONS (910)																						
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)									1										1			
SUICIDE (950-959)			1				1		1						3		1					
HOMICIDE & LEGAL INTERVENTION (960-978)						1						1					1					
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	1																					

TABLE 35D

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
KAUAI COUNTY 1987

CAUSES OF DEATH	ALL AGES		UNDER 1 YR.		1-4 YRS.		5-9 YRS.		10-14 YRS.		15-17 YRS.		18-19 YRS.		20-24 YRS.		25-29 YRS.		30-34 YRS.		35-39 YRS.	
UNKNOWN SEX IN MALE CATEG.	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	206	98	4		2			1	1				2	1	4		6		3	1	7	2
TUBERCULOSIS, ALL FORMS (010-018,137)																						
SYPHILIS AND ITS SEQUELAE (090-097)																					2	
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	3	2																		1		1
MALIGNANT NEOPLASM (140-208)	46	27																				
DIGEST. ORGANS (150-159)	15	15																				
RESPIRATORY SYSTEM (160-163)	18	2																				
BREAST (174-175)		3																				1
GENITAL ORGANS (179-187)	3	1																				
URINARY ORGANS (188-189)	5	1																				
LEUKEMIA (204-208)	2	1																		1		
OTHER (140-208)	3	4																				
DIABETES MELLITUS (250)	2	2																	1		1	
DISEASE OF CIRCULATORY SYSTEM (390-459)	86	47																				
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	63	36																			1	
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)																						
HYPERTENSIVE HEART (402,404)	4	5																			1	
ISCHEMIC HEART (410-414)	38	16																				
OTHER HEART DISEASE (415-417,420-429)	21	15																				
HYPERTENSION (401,403)	1	1																	1			
CEREBROVASCULAR DISEASE (430-438)	16	6																				
ARTERIOSCLEROSIS (440)	1	2																				
OTHER CIRCULATORY (441-459)	5	2															1		1			
INFLUENZA/PNEUMONIA (480-487)	9	1																				
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	3	1																				
PEPTIC ULCER (531-533)	1																					
CIRRHOSIS OF LIVER (571)	6	2																				
NEPHRITIS AND NEPHROSIS (580-589)	2																					
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)																						
CONGENITAL ANOMALIES (740-759)	1		1																			
PERINATAL CONDITIONS (760-779)	1		1														1					
SYMPTOMS & ILL-DEFINED COND (780-799)	5	1	1											1								
ALL OTHER DISEASES (BLANKS,000-799)	18	9			1								2		3		2		1		4	
ACCIDENTAL DEATHS (800-949)	19	5	1		1			1	1				2		2		1		1		2	
MOTOR VEHICLE (810-825)	12	1							1				2									
OTHER TRANS. (800-807,826-848)	1																1					
POISONING (850-869)	1																					
FALLS (880-888)		2																				
FIRES (890-899)	1	2			1			1							1						2	
DROWNING & SUBMERSIONS (910)	3																					
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)	1		1												1		2					1
SUICIDE (950-959)	4	1																				
HOMICIDE & LEGAL INTERVENTION (960-978)																						
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)																						

TABLE 35D (CONT'D)

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
KAUAI COUNTY 1987

UNKNOWN SEX IN MALE CATEG.	40-44 YRS.		45-49 YRS.		50-54 YRS.		55-59 YRS.		60-64 YRS.		65-69 YRS.		70-74 YRS.		75-79 YRS.		80-84 YRS.		OVER 84		UN-KNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	4	1	5		5	3	12	3	12	8	17	10	29	16	29	12	28	10	34	30	2	
TUBERCULOSIS, ALL FORMS (010-018,137)																						
SYPHILIS AND ITS SEQUELAE (090-097)																						
OTHER INFECTIVE & PARASITIC DISEASES (000-139)			1			1										1						
MALIGNANT NEOPLASM (140-208)	2				1	1	2	2	4	3	6	5	14	8	4	2	5	1	8	3		
DIGEST. ORGANS (150-159)	1				1		1	1		2	3	2	2	8	2		1		4	2		
RESPIRATORY SYSTEM (160-163)	1								2	1	3		9			1	1		2			
BREAST (174-175)						1						2										
GENITAL ORGANS (179-187)													1		1		1					
URINARY ORGANS (188-189)							1	1					1				1		2			
LEUKEMIA (204-208)									2			1										
OTHER (140-208)													1		1	1	1	1		1		
DIABETES MELLITUS (250)							1					1		1					1			
DISEASE OF CIRCULATORY SYSTEM (390-459)	2		2		1	1	6		6	2	6	4	11	4	19	6	16	7	15	23		
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	2		2		1	1	6		4	2	4	3	9	2	11	6	11	6	12	16		
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)																						
HYPERTENSIVE HEART (402,404)						1			1				1		1		1	2		2		
ISCHEMIC HEART (410-414)	2		2		1		5		2	2	3		4	2	9	4	4	1	5	7		
OTHER HEART DISEASE (415-417,420-429)							1		1		1	3	4		1	2	6	3	7	7		
HYPERTENSION (401,403)													1							1		
CEREBROVASCULAR DISEASE (430-438)									1		1	1		2	8		3		2	3		
ARTERIOSCLEROSIS (440)																			1	2		
OTHER CIRCULATORY (441-459)									1		1		1				2	1		1		
INFLUENZA/PNEUMONIA (480-487)													2		1		1		3	1		
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)			1								1			1			1					
PEPTIC ULCER (531-533)																					1	
CIRRHOSIS OF LIVER (571)					1		2							1	2			1	1			
NEPHRITIS AND NEPHROSIS (580-589)																			2			
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)																						
CONGENITAL ANOMALIES (740-759)																						
PERINATAL CONDITIONS (760-779)																						
SYMPTOMS & ILL-DEFINED COND (780-799)		1							1										1		1	
ALL OTHER DISEASES (BLANKS,000-799)									1	2	4		2	1	3	1	5	1	2	3		
ACCIDENTAL DEATHS (800-949)			1		2		1	1		1						2						
MOTOR VEHICLE (810-825)			2		1											1						
OTHER TRANS. (800-807,826-848)			1																			
POISONING (850-869)																						
FALLS (880-888)								1		1												
FIRES (890-899)																1						
DROWNING & SUBMERSIONS (910)																						
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)																						
SUICIDE (950-959)																			1			
HOMICIDE & LEGAL INTERVENTION (960-978)																						
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)																						

TABLE 35E

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
MAUI COUNTY 1987

CAUSES OF DEATH	ALL AGES		UNDER 1 YR.		1-4 YRS.		5-9 YRS.		10-14 YRS.		15-17 YRS.		18-19 YRS.		20-24 YRS.		25-29 YRS.		30-34 YRS.		35-39 YRS.	
UNKNOWN SEX IN MALE CATEG.	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	313	209	5	6	2		3		1		3		2		5		9	1	8		12	3
TUBERCULOSIS, ALL FORMS (010-018,137)	1	1																				
SYPHILIS AND ITS SEQUELAE (090-097)																						
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	4	1													1				1		1	1
MALIGNANT NEOPLASM (140-208)	79	50					1		1								1		1			1
DIGEST. ORGANS (150-159)	25	12																	1			
RESPIRATORY SYSTEM (160-163)	29	8																				1
BREAST (174-175)		13																				
GENITAL ORGANS (179-187)	7	3																				
URINARY ORGANS (188-189)	5	5															1					
LEUKEMIA (204-208)	2	2																				
OTHER (140-208)	11	7					1		1													
DIABETES MELLITUS (250)	8	6																	1		4	1
DISEASE OF CIRCULATORY SYSTEM (390-459)	127	90																				
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	96	63																			4	
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	1	1																				
HYPERTENSIVE HEART (402,404)	4	1																			3	
ISCHEMIC HEART (410-414)	60	29																				
OTHER HEART DISEASE (415-417,420-429)	31	32																			1	
HYPERTENSION (401,403)	2																		1			1
CEREBROVASCULAR DISEASE (430-438)	19	23																				
ARTERIOSCLEROSIS (440)		2																				
OTHER CIRCULATORY (441-459)	10	2																				
INFLUENZA/PNEUMONIA (480-487)	11	12		1			1															
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	2	2																				
PEPTIC ULCER (531-533)	3	1																	1			
CIRRHOSIS OF LIVER (571)	3	3																				
NEPHRITIS AND NEPHROSIS (580-589)	2																					
COMPLICATIONS OF PREG. CHILDBIRTH & PUERPERIUM (630-676)																					1	
CONGENITAL ANOMALIES (740-759)	2	3	1	3																		
PERINATAL CONDITIONS (760-779)	3	2	3	2																		
SYMPTOMS & ILL-DEFINED COND (780-799)	2		1																			
ALL OTHER DISEASES (BLANKS,000-799)	31	30									1						1	1				
ACCIDENTAL DEATHS (800-949)	23	6			2		1				1		1		2		4		3		4	
MOTOR VEHICLE (810-825)	12	2											1				4		2		3	
OTHER TRANS. (800-807,826-848)																						
POISONING (850-869)															1							
FALLS (880-888)	1	2																				
FIRES (890-899)	3				1																1	
DROWNING & SUBMERSIONS (910)	5				1		1				1				1							
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																			1			
OTHER ACCIDENTS (800-949)	2	2																				
SUICIDE (950-959)	8	1									1		1		2		1				1	
HOMICIDE & LEGAL INTERVENTION (960-978)		1																				
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	4																2		1		1	

TABLE 35E (CONT'D)

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
MAUI COUNTY 1987

UNKNOWN SEX IN MALE CATEG.	40-44 YRS.		45-49 YRS.		50-54 YRS.		55-59 YRS.		60-64 YRS.		65-69 YRS.		70-74 YRS.		75-79 YRS.		80-84 YRS.		OVER 84		UN-KNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	3	2	3	6	6	5	17	8	30	18	39	18	40	32	48	26	32	25	45	59		
TUBERCULOSIS, ALL FORMS (010-018,137)											1							1				
SYPHILIS AND ITS SEQUELAE (090-097)																						
OTHER INFECTIVE & PARASITIC DISEASES (000-139)											1											
MALIGNANT NEOPLASM (140-208)	1	1		4	3	1	4	4	9	5	13	8	16	13	18	6	6	5	5	2		
DIGEST. ORGANS (150-159)		1			1		1		3	1	3	3	5	1	8	4	2	2	1			
RESPIRATORY SYSTEM (160-163)				1	2		1	3	5	1	5	1	7	2	6		2		1			
BREAST (174-175)				3		1				1				5		1		1				
GENITAL ORGANS (179-187)							1		1	1	1		2	1	1				1	1		
URINARY ORGANS (188-189)	1										1	2	1	1	2	1		1				
LEUKEMIA (204-208)											1	1						1				
OTHER (140-208)							1	1		1	2	1	1	3	1		2		2	1		
DIABETES MELLITUS (250)					1		2	1		1			2	2	1		2	1		1		
DISEASE OF CIRCULATORY SYSTEM (390-459)	1	1	2	1	2		8	1	12	5	17	7	19	15	23	12	16	11	22	36		
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	1		2				7	1	11	3	12	6	12	12	19	8	14	6	14	27		
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)														1	1							
HYPERTENSIVE HEART (402,404)									1				1			1	1		1			
ISCHEMIC HEART (410-414)			2				4	1	6	2	10	5	6	7	12	4	9	2	8	8		
OTHER HEART DISEASE (415-417,420-429)	1						3		4	1	2	1	5	4	6	3	4	4	5	19		
HYPERTENSION (401,403)											2											
CEREBROVASCULAR DISEASE (430-438)		1		1			1		1	2	3	1	4	3		4	1	3	8	7		
ARTERIOSCLEROSIS (440)																		1		1		
OTHER CIRCULATORY (441-459)					2								3		4		1	1		1		
INFLUENZA/PNEUMONIA (480-487)				1		1							1	1	1	1	1	1	7	6		
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)											1			1			1			1		
PEPTIC ULCER (531-533)									1				1						1	1		
CIRRHOSIS OF LIVER (571)			1						1	1		1			1		1			1		
NEPHRITIS AND NEPHROSIS (580-589)																						
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)																						
CONGENITAL ANOMALIES (740-759)																						
PERINATAL CONDITIONS (760-779)																						
SYMPTOMS & ILL-DEFINED COND (780-799)															1							
ALL OTHER DISEASES (BLANKS,000-799)						1	2	2	4	4	6	2	1		3	5	5	4	8	11		
ACCIDENTAL DEATHS (800-949)	1					1	1		2	1						2		2	1			
MOTOR VEHICLE (810-825)	1								1							1		1				
OTHER TRANS. (800-807,826-848)																						
POISONING (850-869)										1						1						
FALLS (880-888)									1										1			
FIRES (890-899)																						
DROWNING & SUBMERSIONS (910)																						
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																		1				
OTHER ACCIDENTS (800-949)						1	1												1			
SUICIDE (950-959)									1	1												
HOMICIDE & LEGAL INTERVENTION (960-978)						1																
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)																						

TABLE 36

TOTAL RECORDED DEATHS FROM MALIGNANT NEOPLASM BY MAJOR AND SELECTED SITES, SEX, AND AGE
STATE OF HAWAII 1937

CAUSES OF DEATH		ALL AGES		UNDER 1 YR.		1-4 YRS.		5-9 YRS.		10-14 YRS.		15-17 YRS.		18-19 YRS.		20-24 YRS.		25-29 YRS.		30-34 YRS.		35-39 YRS.	
UNKNOWN SEX IN MALE CATEG.		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
BUCCAL CAVITY AND PHARYNX	140-149	23	11																			2	
LIP	140																						
TONGUE	141	4	3																				
SALIVARY GLAND	142	1	1																				
GUM	143																						
FLOOR OF MOUTH	144	1	1																			1	
OTHER & UNSPEC PARTS OF MOUTH	145	2	3																			1	
OROPHARYNX	146	1	1																				
NASOPHARYNX	147	9	2																				
HYPOPHARYNX	148	2																					
UNSPECIF BUCCAL CAVITY AND PHARYNX	149	3																1		2		5	1
DIGESTIVE ORGANS & PERITONEUM	150-159	291	176																				
ESOPHAGUS	150	19	3																			1	
STOMACH	151	77	35																				
SMALL INTESTINE & DUODENUM	152		2																	1		1	
LARGE INTESTINE	153	87	67															1					
RECTUM & RECTOSIGMOID JUNCTION	154	20	10																			2	
LIVER AND INTRAHEPATIC BILE DUCTS	155	31	17																				
GALL BLADDER & BILE DUCTS	156	15	4																	1			1
PANCREAS	157	38	38																			1	
PERITONEUM & RETROPERITONEAL TISS	158	3																					
UNSPEC DIGESTIVE ORGANS	159	1																		1		1	
RESPIRATORY SYSTEM	160-165	274	119																				
NOSE,NASAL CAV, MIDDLE EAR & ACCES	160	2	3																				
LARYNX	161	8	1																	1		1	
TRACHEA, BRONCHUS & LUNG	162	263	114																				
OTHER AND UNSPECIFIED ORGANS	163-165	1	1														2	1	1		2	1	3
BONE, CONN TISSUE, SKIN BREAST	170-175	21	121																1				
BONE	170		1														1	1					
CONNECTIVE & OTHER SOFT TISSUE	171	7	4																			1	1
MELANOMA OF SKIN	172	9	7																				
NEOPLASM OF SKIN	173	5	1														1				2		2
BREAST	174-175		108													2					3	1	5
GENITOURINARY ORGANS	179-189	108	70																		2		3
CERVIC UTERI	180		15																				
PLACENTA	181																				1		
OTHER MALIG NEOPLASM OF UTERUS	179,182		13																				1
OVARY, FALLOP TUBE & BROAD LIGAM	183		21																				
OTHER & UNSPEC FEMALE GENITAL ORG	184		1																				
PROSTATE	185	64														2							
TESTIS	186	3																					
OTHER & UNSPEC MALE GENITAL ORGAN	187																						1
BLADDER	188	18	10																			1	
OTHER & UNSPEC URINARY ORGANS	189	23	10																			1	
OTHER AND UNSPECIFIED SITES	190-199	62	44			2	1	1									1	1					
EYE	190																	1				1	
BRAIN	191	11	9			1		1															
OTHER PARTS OF NERVOUS SYSTEM	192																						
THYROID GLAND	193	1	3																				
OTHER ENDOCRINE GLANDS	194	3	1			1	1																
ILL-DEFINED SITES	195																						
SECONDARY & UNSPECIFIED MALIGNANT NEOPLASM OF LYMPH NODES	196	2	5																				
SECONDARY MALIGNANT NEOPLASM OF RESPIRATORY & DIGESTIVE SYSTEMS	197																						
OTHER SECONDARY MALIG NEOPLASM	198																1						
WITHOUT SPECIFICATION OF SITE	199	45	26				1	2		2	2	1		2			1	1	1	3	2	4	1
LYMPHATIC & HEMATOPOIETIC TISS	200-208	73	62					1												1		1	
LYMPHOSARCOMA & RETIC-CELL SARCO	200	7	1																	1			
HODGKINS DISEASE	201	4															1						
OTHER NEOPLASMS OF LYMPHOID TISS	202	18	29							1				1							2	1	
MULTIPLE MYELOMA	203	13	9																				
LYMPHATIC LEUKEMIA	204	6	4					1			1	1						1				1	1
MYELOID LEUKEMIA	205	11	3																				
MONOCYTIC LEUKEMIA	206		2								1												
OTHER AND UNSPECIFIED LEUKEMIA	207-208	14	14				1			1				1						1		1	
TOTAL MALIGNANT NEOPLASMS	140-208	852	603			2	2	3		2	2	1		2		2	4	4	1	6	7	15	10

TABLE 36 (CONT'D)

TOTAL RECORDED DEATHS FROM MALIGNANT NEOPLASM BY MAJOR AND SELECTED SITES, SEX, AND AGE
STATE OF HAWAII 1987

UNKNOWN SEX IN MALE CATEG.		40-44 YRS.		45-49 YRS.		50-54 YRS.		55-59 YRS.		60-64 YRS.		65-69 YRS.		70-74 YRS.		75-79 YRS.		80-84 YRS.		OVER 84		UNKNOWN	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
BUCCAL CAVITY AND PHARYNX	140-149				1		1	4		4	1	6	1	3	1	3	4			1	2		
LIP	140																						
TONGUE	141						1			3	1			1			1						
SALIVARY GLAND	142											1									1		
GUM	143																						
FLOOR OF MOUTH	144							1													1		
OTHER & UNSPEC PARTS OF MOUTH	145											1	1		1		1						
OROPHARYNX	146																1						
NASOPHARYNX	147				1			3		1		2		1		1	1			1			
HYPOPHARYNX	148											1		1									
UNSPECIF BUCCAL CAVITY AND PHARYNX	149											1				2							
DIGESTIVE ORGANS & PERITONEUM	150-159	10	7	9	2	15	6	23	11	33	27	44	31	47	32	52	18	27	14	23	27		
ESOPHAGUS	150			1				2		3	2	2	1	1		4		4		2			
STOMACH	151	3	2	3		2	1	9		8	5	10	6	10	8	14	3	12	3	5	7		
SMALL INTESTINE & DUODENUM	152			1																	1		
LARGE INTESTINE	153	2	2	1	1	8	3	3	8	14	13	12	10	13	10	19	6	4	4	9	10		
RECTUM & RECTOSIGMOID JUNCTION	154		2	2				4		3	1	3	3	2	2	4		1	2				
LIVER AND INTRAHEPATIC BILE DUCTS	155	3	1	1		2	1	3	1	3	1	5	2	7	2	3	3		3	2	3		
GALL BLADDER & BILE DUCTS	156					2				1		1	1	3	1	4	1	3	1	1			
PANCREAS	157	2		1		1	1	2	2	1	5	8	8	11	9	4	5	3	1	4	6		
PERITONEUM & RETROPERITONEAL TISS	158											2											
UNSPEC DIGESTIVE ORGANS	159											1											
RESPIRATORY SYSTEM	160-165	2	6	10	2	22	6	29	18	47	18	60	24	53	17	21	18	14	2	14	8		
NOSE,NASAL CAV, MIDDLE EAR & ACCES	160								1		1			1				1			1		
LARYNX	161							1	1	3				3						1			
TRACHEA, BRONCHUS & LUNG	162	2	6	10	2	22	6	28	16	44	16	59	24	49	17	21	18	13	2	13	7		
OTHER AND UNSPECIFIED ORGANS	163-165										1	1											
BONE, CONN TISSUE, SKIN BREAST	170-175	1	10		12		14	2	11	2	8	4	14	3	18	3	6	1	9	3	11		
BONE	170																						
CONNECTIVE & OTHER SOFT TISSUE	171	1							2			2		1	1	1				1			
MELANOMA OF SKIN	172						1	2	1	1		1		1		1			1	2	3		
NEOPLASM OF SKIN	173									1		1		1	1	1		1					
BREAST	174-175		10		12		13		8		8		14		16		6		8		8		
GENITOURINARY ORGANS	179-189	1	5	1		1	2	8	8	5	8	15	6	20	9	24	6	14	9	16	9		
CERVIC UTERI	180		1				1				2		3						1		2		
PLACENTA	181																						
OTHER MALIG NEOPLASM OF UTERUS	179,182						1		3		3				2				1		2		
OVARY, FALLOP TUBE & BROAD LIGAM	183		2						4		2		1		4		3		2		2		
OTHER & UNSPEC FEMALE GENITAL ORG	184																		1				
PROSTATE	185			1						3		7		14		18		10		11			
TESTIS	186							1															
OTHER & UNSPEC MALE GENITAL ORGAN	187																						
BLADDER	188							2		2		3	2	2	1	3	2	2	2	4	2		
OTHER & UNSPEC URINARY ORGANS	189	1	2			1		5	1		1	5		4	2	3	1	2	2	1	1		
OTHER AND UNSPECIFIED SITES	190-199	2	2	3		7	1	7	2	3	6	10	4	9	8	6	6	4	5	6	8		
EYE	190																						
BRAIN	191	1	1				1	2	1		1	3	1	1	2				1		1		
OTHER PARTS OF NERVOUS SYSTEM	192																						
THYROID GLAND	193			1							1		1		1								
OTHER ENDOCRINE GLANDS	194									1						1							
ILL-DEFINED SITES	195																						
SECONDARY & UNSPECIFIED MALIGNANT NEOPLASM OF LYMPH NODES	196								1			1		1					1		3		
SECONDARY MALIGNANT NEOPLASM OF RESPIRATORY & DIGESTIVE SYSTEMS	197																						
OTHER SECONDARY MALIG NEOPLASM	198																						
WITHOUT SPECIFICATION OF SITE	199	1	1	2		7		5		2	4	6	2	7	5	5	5	4	3	6	4		
LYMPHATIC & HEMATOPOIETIC TISS	200-208		2	1	2	4	2	5	6	5	8	14	11	7	7	6	8	10	4	6	5		
LYMPHOSARCOMA & RETIC-CELL SARCO	200									1		1	1			1		1					
HODGKINS DISEASE	201							1						1				1					
OTHER NEOPLASMS OF LYMPHOID TISS	202				2		1		2	1	5	5	2	2	3		4	1	3	6	4		
MULTIPLE MYELOMA	203		1	1		2	1	1	1	1	1	2	1	1	2	2	2	3					
LYMPHATIC LEUKEMIA	204		1					1	1			1				1	1	1					
MYELOID LEUKEMIA	205					2		2		2		2	1		1	1							
MONOCYTIC LEUKEMIA	206																				1		
OTHER AND UNSPECIFIED LEUKEMIA	207-208								2		2	3	6	3	1	1	1	3	1				
TOTAL MALIGNANT NEOPLASMS	140-208	16	32	24	19	49	32	78	56	99	76	153	91	142	92	115	66	70	43	69	76		

TABLE 37

HAWAII RESIDENT DEATHS OCCURRING OUTSIDE THE STATE BY RACE, AGE, AND SEX*
1987

AGE	TOTAL	TOTAL		CAUCA-SIAN		JAPA-NESE		CHI-NESE		FILI-PINO		HAWAIIAN PT HAW'N		KOREAN		BLACK		OTHER PAC. IS.		OTHER & UNK	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL	67	45	22	27	15	5	2	6	2	3		2	2						1	2	
UNDER 1	2	2	-	1																1	
1 - 19	6	4	2	1				2	1	1			1								
20 - 24	2	1	1	1															1		
25 - 34	5	4	1	1	1	3															
35 - 44	2	1	1	1			1														
45 - 54	6	4	2	3	2							1									
55 - 64	11	8	3	6	2		1	1				1									
65 - 74	21	17	4	11	3	2		3		1			1								
75 - 84	6	2	4	2	3				1												
85 & OVER	5	1	4		4					1											

*INCLUDES DEATHS OCCURRING IN THE UNITED STATES, GUAM, AND CANADA

TABLE 38

TOTAL RECORDED DEATHS BY ISLAND OF OCCURRENCE, BY METHOD OF DISPOSITION AND AUTOPSY PERFORMED
STATE OF HAWAI 1987

ISLAND OF OCCURRENCE	METHOD OF DISPOSITION								AUTOPSY PERFORMED						PRE SUMPTIVE DEATHS
	TOTAL	BURIAL	CRE-MATION	RE-MOVAL	ENTOMB-MENT	EDUC. PURPOSE	OTHER	UNK.	PRIV. PHY. TOTAL	PRIV. PHY. YES	MED.EX./COR.PHY. TOTAL	MED.EX./COR.PHY. YES	OTHER TOTAL	OTHER YES	
TOTAL	6490	2690	3185	565	39			11	5441	382	1031	791	6	1	12
HAWAII	750	325	362	54	6			3	562	36	184	182	1		3
OAHU	4930	2013	2452	432	32			1	4271	328	651	422	5	1	3
KALAWAO COUNTY	1	1							1						
KAUAI	297	119	153	23	1			1	239	12	57	54			1
NIIHAU															
LANAI	16	9	2	5					12	1	4	4			
MAUI	465	204	213	46				2	338	5	126	121			1
MOLOKAI (EXCL OF KALAWAO)	27	19	3	5					18		9	8			
UNKNOWN	4							4							4

FIGURE 3
INFANT DEATHS IN HAWAII 1900-1987

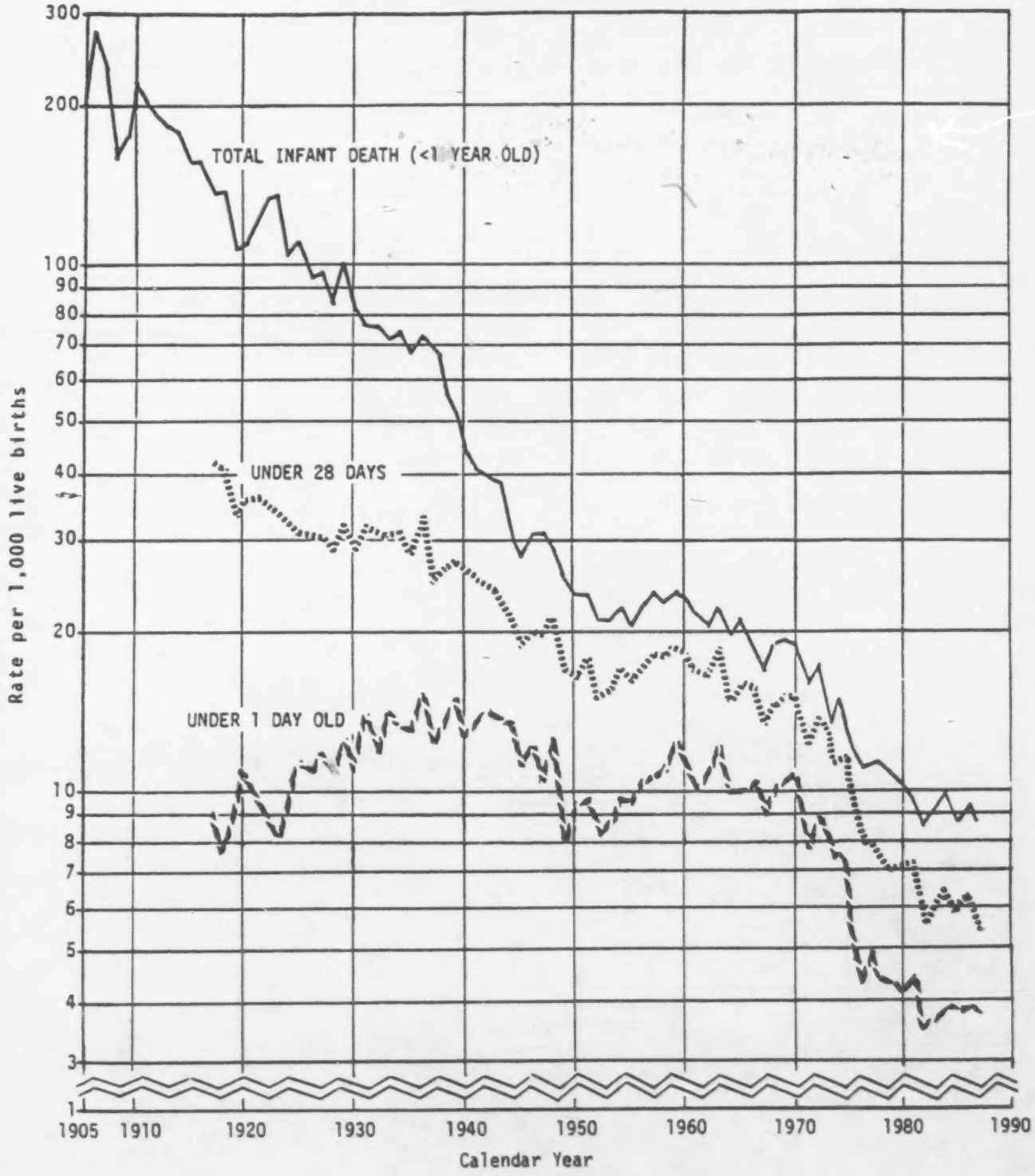


TABLE 39
INFANT DEATHS BY PLACE OF OCCURRENCE REALLOCATED TO USUAL RESIDENCE BY RACE OF CHILD
STATE OF HAWAII, 1987

GEOGRAPHIC AREA		TOTAL BY PLACE OF OCCURRENCE		TOTAL BY PLACE OF RESIDENCE		PERINATAL MORTALITY		RACE OF CHILD											
		NO.	RATE a/	NO.	RATE a/	NO.	RATE b/	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER RACES	UNKN
TOTAL RECORDED		177	9.5	177	9.5			42	4	58	7	19	16	1	1	5	13	1	1	9	
STATE OF HAWAII	NUMBER	177	9.5	164	8.8	206	11.0	36	4	58	7	18	15	1	1	4	13	1	1	5	
	RATE a/	8.2						8.2	78.4	10.1	10.7	6.2	6.5	6.3	3.2	9.1	14.3	6.2	13.7	10.3	
COUNTY OF HAWAII		7	3.8	15	7.8	19	9.9	4		8		1		1						1	
CITY OF HILO		5	4.1	1	1.7	4	6.7			1											
BALANCE OF CTY		2	3.2	14	10.6	15	11.3	4		7		1		1						1	
COUNTY OF HONOLULU		162	11.1	134	9.5	157	11.0	32	4	41	7	12	14		1	4	13	1	1	4	
CITY OF HONOLULU		146	11.1	47	8.9	56	10.6	11	1	7	6	8	7		1	4	2				
BALANCE OF CTY		16	10.9	87	9.8	101	11.3	21	3	34	1	4	7				11	1	1	4	
COUNTY OF KALAWAO																					
COUNTY OF KAUAI		2	2.5	4	4.6	8	9.2			4											
ISLAND OF KAUAI		2	2.5	4	4.6	8	9.2			4											
ISLAND OF NIIHAU										-											
COUNTY OF MAUI		6	4.0	11	6.8	22	13.5			5		5	1								
ISLAND OF LANAI				2	76.9	3	115.3					2									
ISLAND OF MAUI		5	3.6	7	4.8	17	11.7			3		3	1								
ISLAND OF MOLOKAI (EXCL. KALAWAO)		1	13.5	2	13.6	2	13.5			2											
NON-RESIDENT				13				6				1	1			1				4	
UNKNOWN																					

a/ NUMBER OF INFANT DEATHS PER 1,000 LIVE BIRTHS

b/ RESIDENT INFANT DEATHS UNDER 1 WEEK OF AGE AND FETAL DEATHS OF 20 WEEKS OR MORE GESTATION DIVIDED BY THE SUM OF TOTAL RESIDENT LIVE BIRTHS PLUS RESIDENT FETAL DEATHS OF 20 WEEKS OR MORE GESTATION PER 1,000

TABLE 40
RESIDENT INFANT DEATHS BY AGE AND RACE OF MOTHER
STATE OF HAWAII, 1987

AGE OF MOTHER		ALL RACES		RACE OF MOTHER													
		NO.	RATE*	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER RACES	UNKN
ALL AGES	NUMBER	164	8.8	45	4	40	5	17	16	1	3	4	7	1		7	14
	RATE*	8.8		8.0	29.8	9.6	7.6	5.4	6.6	7.0	7.3	8.8	10.4	5.2		14.8	
UNDER 15			--														
15 - 17		4	7.5			3			1								
18 - 19		17	13.4	7		9							1				
20 - 24		46	8.5	14	1	12		8	2		1	3	1	1		3	
25 - 29		40	7.2	11	1	11	1	4	4		1		4			3	
30 - 34		27	6.7	8	2	3	4	3	5	1						1	
35 - 39		14	9.8	4		2		1	4		1	1	1				
40 - 44		2	9.8	1				1									
45 & OVER			--														
UNKNOWN		14	--														14

* NUMBER OF INFANT DEATHS PER 1,000 LIVE BIRTHS

TABLE 41
RESIDENT INFANT DEATHS BY RACE OF MOTHER AND MONTH OF FIRST PRENATAL VISIT
STATE OF HAWAII, 1987

RACE OF MOTHER		NO.	RATE*	MONTH OF FIRST PRENATAL VISIT										
				1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	NONE	UNKNOWN
ALL RACES	NUMBER	164	8.8	17	51	23	18	5	3	2	2		8	35
	RATE*	8.8		6.6	7.0	6.0	11.9	5.2	4.4	4.7	6.1			
CAUCASIAN		45	8.0	10	13	7	6	2					1	6
HAWAIIAN		4	29.8				3						1	
PART HAWAIIAN		40	9.6	2	14	6	4	3		1	2		4	4
CHINESE		5	7.6	1	2	1								1
FILIPINO		17	5.4	1	6	4	1		2					3
JAPANESE		16	6.6	2	7	2	2		1					2
PUERTO RICAN		1	7.0		1									
KOREAN		3	7.3	1			1							1
SAMOAN		4	8.8		1	2							1	
NEGRO		7	10.4		4	1				1				1
PORTUGUESE		1	5.2											1
VIETNAMESE														
OTHER RACES		7	14.8		3		1						1	2
UNKNOWN		14												14

* NUMBER OF INFANT DEATHS PER 1,000 LIVE BIRTHS

TABLE 42
RESIDENT INFANT MORTALITY BY RACE OF CHILD AND AGE, LOW BIRTH WEIGHT INFANT DEATHS
STATE OF HAWAII, 1987

RACE OF CHILD	NUMBER OF INFANT DEATHS					INFANT DEATH RATE a/					LOW BIRTHWEIGHT INFANTS WHO DIED b/	
		AGE AT DEATH (DAYS)										
	TOTAL	UNDER 1 DAY	1-6	7-27	28 DAYS TO 11 MOS	TOTAL	UNDER 1 DAY	UNDER 1 WEEK	UNDER 28 DAYS	28 DAYS TO 11 MOS	NO.	RATE c/
ALL RACES	164	66	21	13	64	8.8	3.6	4.7	5.4	3.4	94	81.0
CAUCASIAN	36	12	6	2	16	8.2	2.7	4.1	4.6	3.7	24	126.3
HAWAIIAN	4	2			2	78.4	39.2	39.2	39.2	39.2	4	800.0
PART HAWAIIAN	58	23	6	6	23	11.3	4.5	5.6	6.8	4.5	29	83.1
CHINESE	7	1	2	1	3	10.7	1.5	4.6	6.1	4.6	3	69.8
FILIPINO	18	10	2	1	5	6.2	3.4	4.1	4.5	1.7	8	32.1
JAPANESE	15	6	3	1	5	6.5	2.6	3.9	4.3	2.2	8	52.3
PUERTO RICAN	1				1	6.3				6.3		
KOREAN	1				1	3.2				3.2	1	47.6
SAMOAN	4	2			2	9.1				9.1	3	62.5
NEGRO	13	7	1	1	4	14.3	7.7	8.8	9.9	4.4	6	46.0
PORTUGUESE	1				1	6.2				6.2	1	90.9
VIETNAMESE	1				1	13.7				13.7	1	
OTHER RACES	5	3	1	1		10.3	6.2	8.2	10.3		4	111.1
UNKNOWN												

a/ NUMBER OF INFANT DEATHS PER 1,000 LIVE BIRTHS
b/ INFANTS OF LESS THAN 2500 GRAMS (5 LBS 8 OZ) ARE CONSIDERED LOW BIRTH WEIGHT
c/ NUMBER OF DEATHS PER 1,000 LOW BIRTH WEIGHT LIVE BIRTHS

TABLE 43

RESIDENT INFANT MORTALITY BY SELECTED CAUSES BY BIRTH WEIGHT, SEX AND AGE, NEONATAL DEATHS
STATE OF HAWAII, 1987

CAUSE OF DEATH[a]	TOTAL			BIRTH WEIGHT			SEX			AGE AT DEATH				NEONATAL DEATH[c]	
	NO.	RATE[b]	PER CENT	2500 GMS UNDER	OVER 2500 GMS	UNK	MALE	FEMALE	UNK	UNDER 1 DAY	1-6 DAYS	7-27 DAYS	28 DAYS TO 11 MOS	NO.	RATE[b]
ALL CAUSES	164	8.8	100.0	94	52	18	100	64		66	21	13	64	100	5.4
INTESTINAL INFECTIVE DISEASES (001-009)	1	0.1	.6	1			1						1		
OTHER INFECTIVE DISEASES (010-139)	4	0.2	2.4	1	2	1	2	2					4		
INFECTIONS OF NEWBORN (771)															
MENINGITIS (320-322)	3	0.2	1.8	2	1		3				1		2	1	0.1
PNEUMONIA (480-486,7700)	7	0.4	4.3	3	3	1	2	5		1	1		5	2	0.1
CONGENITAL ANOMALIES OF CIRCULATORY SYST (745-747)	23	1.2	14.0	9	12	2	9	14		5	9	4	5	18	1.0
OTHER CONG ANOMAL (740-759)	22	1.2	13.4	16	5	1	13	9		11	5	2	4	18	1.0
MATERNAL CONDITIONS UNRELATED TO PREGNANCY (760)															
COMPLICATIONS OF PREGNANCY (761)	1	0.1	.6	1			1			1				1	0.1
COMPLICATIONS OF PLACENTA CORD & MEMBRANE (762)	1	0.1	.6	1				1		1				1	0.1
OTHER COMPLICATIONS OF LABOR AND DELIVERY (763)															
BIRTH INJURY (767)	1	0.1	.6	1				1				1		1	0.1
HEMOLYTIC DISEASE OF NEWBORN (773)															
RESPIRATORY DISTRESS SYNDROME (769)	11	0.6	6.7	9	1	1	9	2		7	3	1		11	0.6
ASPHYXIA & HYPOXIA (768)	1	0.1	.6	1				1		1				1	0.1
IMMATURITY (765)	28	1.5	17.1	23		5	17	11		28				28	1.5
OTHER PERINATAL (760-779)	20	1.1	12.2	16		4	12	8		7	2	4	7	13	0.7
SUDDEN INFANT DEATH SYNDROME (7980)	25	1.3	15.2	4	19	2	17	8				1	24	1	0.1
ACCIDENTS (800-949)	3	0.2	1.8	1	2		3						3		
OTHER EXTERNAL CONDITIONS (950-959)	1	0.1	.6			1	1						1		
ALL OTHER CONDITIONS-RESIDUAL	12	0.6	7.3	5	7		10	2		4			8	4	0.2

[a] 9TH ICD
[b] NUMBER OF INFANT DEATHS PER 1,000 LIVE BIRTHS
[c] DEATHS UNDER 28 DAYS OLD

TABLE 44

STANDARD FETAL DEATHS BY PLACE OF OCCURRENCE REALLOCATED TO USUAL RESIDENCE OF MOTHER AND GESTATION PERIOD
STATE OF HAWAII, 1987

GEOGRAPHIC AREA		TOTAL BY PLACE OF OCCURRENCE		TOTAL BY PLACE OF RESIDENCE			GESTATION PERIOD IN WEEKS										
		NO.	RATIO[a]	NO.	RATIO[a]	RATE[b]	UNDER 12	12	13	14	15	16-19	20-27	28-35	36-39	40 & OVER	UNKN
TOTAL RECORDED		1,405	75.2	1,405	75.2	69.9	939	108	46	32	23	83	52	40	23	9	50
STATE OF HAWAII	NUMBER	1,405	75.2	1,338	72.1	67.2	896	100	45	28	23	79	50	39	22	8	48
	PERCENT			100.0			67.0	7.5	3.4	2.1	1.7	5.9	3.7	2.9	1.6	0.6	3.6
COUNTY OF HAWAII		138	75.5	132	79.4	73.5	124	6			2	7	5	3	1	2	2
CITY OF HILO		131	107.9	71	119.1	106.4	64	1				2	2			1	1
BALANCE OF COUNTY		7	11.4	61	61.4	57.8	60	5			2	5	3	3	1	1	1
COUNTY OF HONOLULU		995	68.3	951	67.2	62.9	607	77	35	22	18	65	33	31	18	5	40
CITY OF HONOLULU		834	63.8	384	72.8	67.8	241	38	15	9	4	27	15	11	4	2	18
BALANCE OF COUNTY		159	108.4	567	63.8	60.0	366	39	20	13	14	38	18	20	14	3	22
COUNTY OF KALAWAO																	
COUNTY OF KAUAI		95	117.1	83	96.0	87.6	58	8	5	1	1	3	5	2			
ISLAND OF KAUAI		95	117.1	83	96.1	87.6	58	8	5	1	1	3	5	2			
ISLAND OF NIIHAU																	
COUNTY OF MAUI		177	119.5	152	94.1	86.0	107	9	5	5	2	4	7	3	3	1	4
ISLAND OF LANAI				2	76.9	71.4	1							1			
ISLAND OF MAUI		177	126.6	146	101.2	91.9	104	8	5	5	2	4	6	2	3	1	6
ISLAND OF MOLOKAI				4	27.2	26.5	2	1					1				
NON-RESIDENT				67	523.4	343.6	43	8	1	4		4	2	1	1	1	2
UNKNOWN																	

[a] NUMBER OF FETAL DEATHS PER 1,000 LIVE BIRTHS
[b] NUMBER OF FETAL DEATHS PER 1,000 DELIVERIES (LIVE BIRTHS AND STANDARD FETAL DEATHS)

TABLE 45

STANDARD FETAL DEATHS BY PLACE OF OCCURRENCE REALLOCATED TO USUAL RESIDENCE OF MOTHER BY RACE
STATE OF HAWAII, 1987

GEOGRAPHIC AREA	TOTAL BY PLACE OF OCCURRENCE		TOTAL BY PLACE OF RESIDENCE			RACE OF FETUS												
	NO.	RATIO [a]	NO.	RATIO [a]	RATE [b]	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERRCAN	KOREAN	SAMOAN	NEGRO	PORTGESE	VIETMESE	OTHER	UNKN
TOTAL RECORDED	1405	75.2	1405	75.2	69.1	474	36	239	46	192	190	2	25	12	31	8	4	29	117
STATE OF HAWAII NUMBER	1405	75.2	1338	72.1	67.2	424	36	238	43	191	184	2	24	12	31	9	4	27	114
STATE OF HAWAII RATIO [a]	75.2		72.1			75.1	268.6	57.0	65.2	61.3	76.5	14.0	58.7	26.3	46.0	41.7	54.0	57.0	
STATE OF HAWAII RATE [b]	69.9		67.2			69.8	211.8	54.0	61.2	57.8	71.1	13.8	55.4	25.6	44.0	40.0	51.3	53.9	
COUNTY OF HAWAII	138	75.5	152	79.4	73.5	43	1	57	1	23	17	1	2			1		5	1
CITY OF HILO	131	107.9	71	119.1	106.4	17		36		7	9	1							1
BALANCE OF COUNTY	7	11.4	81	61.4	57.8	26	1	21	1	16	8		2			1		5	
COUNTY OF HONOLULU	995	68.3	951	67.2	62.9	285	29	134	41	126	147		22	12	29	1	4	21	100
CITY OF HONOLULU	836	63.8	384	72.8	67.8	122	6	39	27	41	67		15	3	7	1	4	10	42
BALANCE OF COUNTY	159	108.4	567	63.8	60.0	163	23	95	14	85	80		7	9	22			11	58
COUNTY OF KALAWAO																			
COUNTY OF KAUAI	95	117.1	83	96.0	87.6	31	3	22		18	5					1			3
ISLAND OF KAUAI	95	117.1	83	96.1	87.6	31	3	22		18	5					1			3
ISLAND OF NIIHAU																			
COUNTY OF MAUI	177	119.5	152	94.1	86.0	65	3	25	1	24	15	1			2	5		1	10
ISLAND OF LANAI			2	76.9	71.4					2									
ISLAND OF MAUI	177	126.6	144	101.2	91.9	63	3	24	1	22	15	1			2	5		1	9
ISLAND OF MOLOKAI			4	27.2	26.5	2		1											1
NON-RESIDENT			67	523.4	343.6	50		1	3	1	6		1					2	3
UNKNOWN																			

[a] NUMBER OF FETAL DEATHS PER 1,000 LIVE BIRTHS
[b] NUMBER OF FETAL DEATHS PER 1,000 DELIVERIES (LIVE BIRTHS AND STANDARD FETAL DEATHS)

TABLE 46

STANDARD FETAL DEATHS BY CAUSE AND GESTATION PERIOD
STATE OF HAWAII, 1987

CAUSE	CODE*	TOTAL		GESTATION PERIOD IN WEEKS										
		NUMBER	PERCENT	UNDER 12	12	13	14	15	16-19	20-27	28-35	36-39	40 & OVER	UNKN
ALL CAUSES	ALL	1,405	100.0	939	108	46	32	23	83	52	40	23	9	50
SPONTANEOUS ABORTION	7618	600	42.7	429	50	23	17	10	33	6	2			30
ALL OTHER ABORTIONS	7796	304	21.6	219	36	10	13	6	12	4				4
CONGENITAL ANOMALIES	740-759	9	.6						2	2	5			
CHRONIC CIRCULATORY, RESPIRATORY, AND GENITOURINARY DISEASES IN THE MOTHER	7600,7601,7603	5	.4			2				1	2			
MATERNAL CONDITIONS UNRELATED TO PREGNANCY	7602,7604-7609	4	.3	2					2					
COMPLICATIONS OF PREGNANCY AND CHILDBIRTH	7610-7617,7619	227	16.2	185	4	3		1	8	10	1	1		14
DIFFICULT LABOR WITH OR WITHOUT MENTION OF BIRTH INJURY	763													
COMPLICATIONS OF PLACENTA, CORD AND MEMBRANES	762	57	4.1	6	4	3		3	7	3	17	10	3	1
BIRTH INJURY WITHOUT MENTION OF CAUSE	767													
HEMOLYTIC DISEASE OF NEWBORN	773	1	.1	1										
OTHER CONDITIONS OF FETUS	764-766,768-770	1	.1									1		
UNKNOWN	7799	181	12.9	96	13	5	2	3	14	24	10	9	4	1
ALL OTHER CAUSES	RESIDUAL	16	1.1	1	1				5	2	3	2	2	

* 9TH ICD

TABLE 47
STANDARD FETAL DEATHS BY AGE OF MOTHER AND GESTATION PERIOD
STATE OF HAWAII, 1987

AGE OF MOTHER IN YEARS	TOTAL			GESTATION PERIOD IN WEEKS: NUMBER										GESTATION PERIOD IN WEEKS: PERCENT						
	NO.	RATIO*	PER-CENT	<12	12	13	14	15	16 TO 19	20 TO 27	28 TO 35	36 TO 39	40 & OVER	UNKN	UNDER 12	UNDER 20	UNDER 28	UNDER 36	36 TO 39	40 & OVER	UNKN
ALL AGES	1,405	75.7	100.0	939	108	46	32	23	83	52	40	23	9	50	66.8	87.6	91.3	94.2	1.6	.6	3.6
UNDER 15	1	58.8	.1	1											100.0	100.0	100.0	100.0			
15 - 17	43	80.7	3.1	21	4	2	2	2	7	1	1	2		1	48.8	88.4	90.7	93.0	4.7		2.3
18 - 19	67	52.9	4.8	46	5	3		2	3	3	3	1		1	68.7	88.1	92.5	97.0	1.5		1.5
20 - 24	281	51.7	20.0	172	20	11	8	2	24	16	12	7	3	6	61.2	84.3	90.0	94.3	2.5	1.1	2.1
25 - 29	384	69.5	27.3	260	29	9	10	10	22	13	5	4	3	19	67.7	88.5	91.9	93.2	1.0	.8	4.9
30 - 34	350	87.0	24.9	247	27	11	5	3	14	12	14	6		11	70.6	87.7	91.1	95.1	1.7		3.1
35 - 39	209	135.0	14.9	141	19	9	4	4	6	6	5	3	2	10	67.5	87.6	90.4	92.8	1.4	1.0	4.8
40 - 44	56	275.9	4.0	41	3	1	2		7	1				1	73.2	96.4	98.2	98.2			1.8
45 - 49	7	1400.0	.5	5	1		1								71.4	100.0	100.0	100.0			
50 & OVER	1		.1	1											100.0	100.0	100.0	100.0			
UNKNOWN	6		.4	4									1	1	66.7	66.7	66.7	66.7		16.7	16.7

*NUMBER OF FETAL DEATHS PER 1,000 LIVE BIRTHS

TABLE 48
STANDARD FETAL DEATHS BY RACE OF MOTHER AND AGE OF MOTHER
STATE OF HAWAII, 1987

ALL RACES		RACE OF MOTHER															
		NO.	PER CENT	CAUCSIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERRCAN	KOREAN	SAMOAN	NEGRO	PORTGESE	VIETNESE	OTHER	UNKN
	NUMBER	1405	100.0	477	42	198	51	196	198	2	26	14	28	13	4	27	129
	PERCENT	100.0		34.0	3.0	14.1	3.6	14.0	14.1	.1	1.9	1.0	2.0	.9	.3	1.9	9.2
UNDER 15		1	.1													1	
15 - 17		43	3.1	12	2	10	2	6	2			1					8
18 - 19		67	4.8	12	5	23		10	4			3	1	1			8
20 - 24		281	20.0	85	15	55	2	50	16		3	5	9	5	1	6	29
25 - 29		384	27.3	144	9	52	10	50	55	1	4	3	12	4		8	32
30 - 34		350	24.9	112	7	42	24	41	68	1	9	2	4	2	3	7	28
35 - 39		209	14.9	80	3	15	10	31	42		5		1			5	17
40 - 44		56	4.0	29	1	1	3	5	9		1			1			6
45 - 49		7	.5	3				2	1		1						
50 & OVER		1	.1					1									
UNKNOWN		6	.4						1		3		1				1

TABLE 49
ELECTIVE ABORTIONS BY RACE OF MOTHER AND AGE OF MOTHER
STATE OF HAWAII, 1967

MOTHERS AGE IN YEARS		NO.	PERCENT	ABORTIONS PER 1000 LIVE BIRTHS	RACE OF MOTHER: CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	NEGRO	SAMOAN	VIETNAMESE	PORTUGUESE	OTHER RACES	UNKNOWN
	NUMBER	5,971		321.8	1759	163	816	345	969	889	21	254	116	110	31	47	175	428
	PERCENT		100.0		29.5	2.7	13.7	5.3	16.2	14.8	.4	4.3	2.0	1.8	.5	.8	2.9	7.2
UNDER 15		46	.8	2,705.9	6	2	11		7	7		1					2	10
15 - 17		539	9.0	1,011.2	103	24	94	17	95	104	1	11	9	8	1	11	12	49
18 - 19		669	11.2	538.4	185	29	103	15	115	101	2	15	15	11	5	4	14	55
20 - 24		1,951	32.7	358.9	935	49	316	60	326	268	12	47	45	49	5	16	61	140
25 - 29		1,314	22.0	337.8	424	41	174	43	189	177	3	65	35	23	4	13	39	87
30 - 34		858	14.4	313.4	296	11	76	30	136	130	3	69	10	17	6		23	51
35 - 39		434	7.3	280.4	141	5	34	19	65	76		33	4	5	7	1	18	26
40 - 44		148	2.5	729.1	49	2	10	11	30	21		13			3	1	4	8
45 - 49		4	.1	800.0					2	1								1
50 & OVER		1																1
UNKNOWN		7	.1		4				2							1		

TABLE 50
ELECTIVE ABORTIONS BY AGE OF MOTHER AND LENGTH OF GESTATION PERIOD
STATE OF HAWAII, 1967

AGE OF MOTHER	GESTATION PERIOD IN WEEKS: TOTAL	UNDER 6	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21 & OVER	UNKN
ALL AGES	5,971	160	849	898	1,349	611	753	272	318	144	125	70	110	80	94	70	29	38	9
UNDER 15	46		4	8	9	4	6	9	1	2	4		3	1		2	1		
15 - 17	539	15	68	71	95	51	69	26	33	16	14	6	15	13	15	13	9	8	
18 - 19	669	9	62	88	153	65	101	34	37	17	18	14	22	12	17	10	3	4	3
20 - 24	1,951	44	247	293	436	206	261	102	103	57	43	21	36	30	33	20	11	7	2
25 - 29	1,314	50	207	206	307	140	163	53	62	30	21	13	17	11	15	10	3	5	1
30 - 34	858	26	158	107	213	86	83	29	94	14	16	10	6	7	8	5	2	3	1
35 - 39	434	11	78	68	103	40	51	18	23	6	6	5	7	4	5	7		1	1
40 - 44	148	5	23	26	34	17	17	5	4		3	1	4	2	1	3		2	1
45 - 49	4			1	2				1										
50 & OVER	1		1																
UNKNOWN	7		1	1	1	2	2												

TABLE 51
ELECTIVE ABORTIONS BY LEGITIMACY AND RACE OF MOTHER
STATE OF HAWAII, 1987

LEGITIMACY STATUS	TOTAL	RACE OF MOTHER														
		CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	NEGRO	SAMOAN	PORTUGESE	VIETNAMESE	OTHER RACES	UNKNOWN
TOTAL	5,971	1,799	163	816	195	969	885	21	254	118	110	31	47	175	428
LEGITIMATE	1,469	318	29	177	63	352	191	5	91	33	24	14	13	54	105
ILLEGITIMATE	4,451	1,424	133	636	127	611	681	16	160	84	86	17	34	120	322
UNKNOWN	51	17	1	3	5	6	13		3	1				1	1

TABLE 52
ELECTIVE ABORTIONS BY LEGITIMACY STATUS AND AGE OF MOTHER
STATE OF HAWAII, 1987

LEGITIMACY STATUS	TOTAL	AGE OF MOTHER IN YEARS										
		UNDER 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50 & OVER	UNKNOWN
TOTAL	5,971	46	539	669	1,951	1,314	856	434	148	4	1	7
LEGITIMATE	1,469		10	42	357	415	344	212	88	4	1	2
ILLEGITIMATE	4,451	46	523	618	1,580	891	501	219	60			5
UNKNOWN	51		6	9	14	8	11	3				

TABLE 53
ELECTIVE ABORTIONS BY TYPE OF PROCEDURE AND GESTATION PERIOD
STATE OF HAWAII, 1987

TYPE OF PROCEDURE	TOTAL	GESTATION PERIOD IN WEEKS														
		UNDER 6	6	7	8	9	10	11	12	13	14	15	16	17-19	20 & OVER	UNKN
TOTAL	5,971	160	849	890	1,349	611	753	272	318	144	125	70	110	244	99	9
SUCTION CURETTAGE	5,861	159	846	890	1,344	610	751	272	317	143	117	60	83	201	91	9
SHARP D & C	7				1		1									
AMNIOTIC FLUID EXCHANGE																
HYSTEROTOMY																
HYSTERECTOMY																
PROSTAGLANDIN	62				1					1	9	7	17	26	5	
OTHER	31		1						1		3	3	10	17	5	
NOT STATED	9	1	2		3	1	1				1					
UNKNOWN																

TABLE 54
ELECTIVE ABORTIONS BY COUNTY OF RESIDENCE AND COUNTY OF OCCURRENCE
STATE OF HAWAII, 1987

COUNTY OF RESIDENCE		NO.	PER-CENT	ABORTIONS PER 1,000 LIVE BIRTHS	COUNTY OF OCCURRENCE															
						COUNTY OF HAWAII			COUNTY OF HONOLULU			KALAWAO CNTY	COUNTY OF KAUAI			COUNTY OF MAUI				
					TOTAL	TOT	HILO CITY	BAL	TOT	HON CITY	BAL		TOT	KAUI ISL	NIIHAU ISL	TOT	MAUI ISL	LANAI ISL	POLOKAI ISL	NON RES	UNK
TOTAL RECORDED	NUMBER	5971	100.0	319.5	5971	275	244	31	5198	4214	984		116	116		382	382				
	PERCENT	100.0			100.0	4.6	4.1	.5	87.1	70.6	16.5		1.9	1.9		6.4	6.4				
STATE OF HAWAII		5924	99.2	319.3	5924	275	244	31	5151	4176	975		116	116		382	382				
COUNTY OF HAWAII		324	5.4	169.2	324	275	244	31	49	46	3										
CITY OF HILO		137	2.3	229.9	137	118	117	1	19	19											
BALANCE OF COUNTY		187	3.1	141.8	187	157	127	30	30	27	3										
COUNTY OF HONOLULU		4944	82.8	349.2	4944				4940	4001	939					4	4				
CITY OF HONOLULU		2937	49.2	556.8	2937				2936	2577	359					1	1				
BALANCE OF COUNTY		2007	33.6	225.9	2007				2004	1424	580					3	3				
COUNTY OF KALAWAO																					
COUNTY OF KAUAI		185	3.1	213.9	185				69	41	28		116	116							
ISLAND OF KAUAI		185	3.1	214.1	185				69	41	28		116	116							
ISLAND OF NIIHAU																					
COUNTY OF MAUI		471	7.9	291.6	471				93	88	5					378	378				
ISLAND OF MAUI		451	7.6	312.8	451				76	71	5					375	375				
ISLAND OF LANAI		5	.1	192.3	5				3	3						2	2				
ISLAND OF MOLOKAI		15	.3	102.0	15				14	14						1	1				
NON-RESIDENT		46	.8	359.4	46				46	38	8										
UNKNOWN		1			1				1		1										

TABLE 55
MARRIAGES BY COUNTY AND MONTH OF OCCURRENCE
STATE OF HAWAII, 1987

COUNTY OF MARRIAGE	TOTAL			NUMBER OF MARRIAGES RECORDED											
				MONTH											
	NUMBER OF MARRIAGES RECORDED	PERCENT	RATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
TOTAL	16567	100	15.3	1010	1369	1201	1241	1669	1503	1456	1653	1409	1287	1327	1442
HONOLULU	10177	61	12.2	648	857	760	760	997	905	927	1043	850	744	791	895
HAWAII	1322	8	11.6	71	125	86	89	119	131	124	143	95	106	107	126
MAUI	2655	16	29.5	180	220	178	213	261	241	212	251	226	211	219	243
KAUAI	2413	15	50.7	111	167	177	179	292	226	193	216	238	226	210	178

TABLE 55A
MARRIAGES BY GEOGRAPHIC AREA AND MONTH OF OCCURENCE
STATE OF HAWAII, 1987

GEOGRAPHIC AREA	TOTAL			NUMBER OF MARRIAGES RECORDED											
				MONTH											
	NUMBER OF MARRIAGES RECORDED	PERCENT	RATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
TOTAL	16567	100	15.3	1010	1369	1201	1241	1669	1503	1456	1653	1409	1287	1327	1442
HONOLULU CITY	7399	45	18.9	495	615	536	513	727	652	655	754	629	559	587	677
REST OF OAHU	2778	17	6.3	153	242	224	247	270	253	272	289	221	185	204	218
HILO CITY	422	3	9.6	27	42	23	26	36	53	54	46	19	33	28	35
REST OF BIG ISLAND	900	5	12.7	44	83	63	63	83	78	70	97	76	73	79	91
ISL OF MAUI	2584	16	31.9	174	213	174	205	257	235	206	243	223	206	216	232
ISL OF LANAI	10	0	4.4	3	1	-	-	1	-	2	-	-	1	-	2
ISL OF MOLOKAI	61	0	9.1	3	6	4	8	3	6	4	8	3	4	3	9
ISL OF KAUAI	2413	15	50.7	111	167	177	179	292	226	193	216	238	226	210	178

TABLE 56
MARRIAGES BY AGE OF GROOM AND AGE OF BRIDE
STATE OF HAWAII, 1987

AGES OF MARRIED COUPLE	TOTAL		NUMBER OF MARRIAGES RECORDED														
			BRIDE'S AGE														
	NUMBER OF MARRIAGES RECORDED	PERCENT	<15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	>75
TOTAL	16567	100	1	143	899	4199	4482	2956	1743	927	563	282	168	102	64	22	16
GROOM'S AGE																	
15-17	10	0	-	2	8	-	-	-	-	-	-	-	-	-	-	-	-
18-19	358	2	-	90	186	99	20	2	1	-	-	-	-	-	-	-	-
20-24	3380	20	-	72	546	2031	531	136	50	11	3	-	-	-	-	-	-
25-29	4106	25	1	13	108	1374	1906	545	129	19	10	1	-	-	-	-	-
30-34	3112	19	-	5	30	450	1144	1026	337	88	22	6	1	1	-	-	-
35-39	2134	13	-	1	11	146	566	718	485	157	42	7	1	-	-	-	-
40-44	1357	8	-	-	5	68	202	325	404	252	73	23	5	-	-	-	-
45-49	811	5	-	-	4	21	70	122	204	194	147	38	9	2	-	-	-
50-54	484	3	-	-	1	4	25	47	79	116	116	73	19	3	1	-	-
55-59	307	2	-	-	-	3	9	17	36	46	80	59	41	12	3	1	-
60-64	232	1	-	-	-	2	5	10	14	23	44	47	39	38	8	2	-
65-69	137	1	-	-	-	1	-	6	4	12	20	16	27	23	22	2	4
70-74	76	0	-	-	-	-	1	-	-	7	2	5	14	16	23	6	2
>75	63	0	-	-	-	-	1	2	-	2	4	7	12	7	7	11	10

MEDIAN AGE OF GROOMS = 30.7
MEDIAN AGE OF BRIDES = 28.4

TABLE 56A
MARRIAGES BY AGE OF RESIDENT GROOM AND AGE OF BRIDE
STATE OF HAWAII, 1987

AGES OF MARRIED COUPLE	TOTAL		NUMBER OF MARRIAGES RECORDED													
	NUMBER OF MARRIAGES RECORDED	PERCENT	BRIDE'S AGE													
			15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	>75
TOTAL	9414	100	137	800	2933	2501	1437	781	369	207	109	62	45	19	6	8
GROOM'S AGE																
15-17	10	0	2	8	-	-	-	-	-	-	-	-	-	-	-	-
18-19	329	3	47	171	92	16	2	1	-	-	-	-	-	-	-	-
20-24	2646	28	70	486	1551	388	102	39	8	2	-	-	-	-	-	-
25-29	2477	26	12	93	865	1107	312	72	9	7	-	-	-	-	-	-
30-34	1661	18	5	25	298	599	518	161	42	10	3	-	-	-	-	-
35-39	963	10	1	8	79	258	302	230	64	17	4	-	-	-	-	-
40-44	535	6	-	5	31	83	122	156	97	28	12	1	-	-	-	-
45-49	307	3	-	3	10	31	38	64	79	59	17	4	2	-	-	-
50-54	175	2	-	1	3	10	22	33	36	39	22	8	1	-	-	-
55-59	116	1	-	-	2	5	9	18	12	28	23	13	6	-	-	-
60-64	87	1	-	-	1	2	5	6	9	8	18	18	17	3	-	-
65-69	42	0	-	-	1	-	3	1	8	5	3	5	8	6	-	2
70-74	28	0	-	-	-	1	-	-	3	1	2	4	8	5	2	2
>75	38	0	-	-	-	1	2	-	2	3	5	9	3	5	4	4

MEDIAN AGE OF GROOMS = 28.5
MEDIAN AGE OF BRIDES = 26.7

TABLE 56B
MARRIAGES BY AGE OF GROOM AND AGE OF RESIDENT BRIDE
STATE OF HAWAII, 1987

AGES OF MARRIED COUPLE	TOTAL		NUMBER OF MARRIAGES RECORDED													
	NUMBER OF MARRIAGES RECORDED	PERCENT	BRIDE'S AGE													
			15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	>75
TOTAL	9314	100	130	764	2898	2482	1416	797	377	205	103	65	45	18	6	8
GROOM'S AGE																
15-17	10	0	2	8	-	-	-	-	-	-	-	-	-	-	-	-
18-19	310	3	46	162	86	13	2	1	-	-	-	-	-	-	-	-
20-24	2583	28	64	465	1529	376	100	39	8	2	-	-	-	-	-	-
25-29	2467	26	12	88	865	1105	305	76	9	7	-	-	-	-	-	-
30-34	1666	18	5	25	298	598	515	166	46	10	3	-	-	-	-	-
35-39	970	10	1	7	76	262	299	237	68	16	4	-	-	-	-	-
40-44	528	6	-	5	27	81	117	155	99	31	12	1	-	-	-	-
45-49	299	3	-	3	10	30	38	63	77	58	14	4	2	-	-	-
50-54	171	2	-	1	3	9	21	33	37	38	20	8	1	-	-	-
55-59	113	1	-	-	2	4	9	19	12	25	21	15	6	-	-	-
60-64	89	1	-	-	1	2	5	7	8	9	19	18	17	3	-	-
65-69	43	0	-	-	1	-	3	1	8	5	3	5	8	7	-	2
70-74	25	0	-	-	-	1	-	-	3	1	2	4	7	5	1	1
>75	40	0	-	-	-	1	2	-	2	3	5	10	4	3	5	5

MEDIAN AGE OF GROOMS = 28.6
MEDIAN AGE OF BRIDES = 26.7

TABLE 57
MARRIAGES BY PREVIOUS MARITAL STATUS OF COUPLE BY AGE
STATE OF HAWAII, 1987

AGE OF GROOM	TOTAL		NUMBER OF MARRIAGES RECORDED			
			GROOM'S STATUS			
	NUMBER OF MARRIAGES RECORDED	PERCENT	WIDOWED	DIVORCED	ANNULLED	NEVER MARRIED
TOTAL	16567	100	444	6072	51	10000
< 15						
15-17	10	0	-	-	-	10
18-19	358	2	-	1	-	357
20-24	3380	20	2	161	7	3210
25-29	4106	25	4	678	8	3416
30-34	3112	19	9	1179	14	1910
35-39	2134	13	22	1367	11	734
40-44	1357	8	19	1102	5	231
45-49	811	5	23	719	2	67
50-54	484	3	54	402	1	27
55-59	307	2	53	238	1	15
60-64	232	1	95	128	1	8
65-69	137	1	73	57	-	7
70-74	76	0	49	24	-	3
>75	63	0	41	16	1	5

TABLE 57A
MARRIAGES BY PREVIOUS MARITAL STATUS OF COUPLE BY AGE
STATE OF HAWAII, 1987

AGE OF BRIDE	TOTAL		NUMBER OF MARRIAGES RECORDED			
			BRIDE'S STATUS			
	NUMBER OF MARRIAGES RECORDED	PERCENT	WIDOWED	DIVORCED	ANNULLED	NEVER MARRIED
TOTAL	16567	100	473	5930	53	10111
<15	1	0	-	-	-	1
15-17	143	1	-	1	-	142
18-19	899	5	-	13	-	886
20-24	4199	25	6	376	9	3808
25-29	4482	27	27	1155	10	3290
30-34	2956	18	32	1502	17	1405
35-39	1743	11	50	1279	4	410
40-44	927	6	47	776	3	101
45-49	563	3	61	458	4	40
50-54	282	2	55	210	4	13
55-59	168	1	53	107	-	8
60-64	102	1	58	38	1	5
65-69	64	0	49	12	1	2
70-74	22	0	19	3	-	-
>75	16	0	16	-	-	-

TABLE 58
MARRIAGES BY OCCUPATION OF GROOM AND BRIDE
STATE OF HAWAII, 1987

CODES AND OCCUPATIONS	TOTAL		NUMBER OF MARRIAGES RECORDED											
			BRIDE'S OCCUPATION											
	NUMBER OF MARRIAGES RECORDED	PERCENT	0	1	2	3	4	5	6	7	8	9	10	UNK
TOTAL	16567	100	3381	2920	2218	3895	1097	133	297	1810	12	65	735	4
GROOM'S OCCUPATION														
0 NO OCCUPATION	650	4	309	71	44	84	26	1	9	83	-	1	22	-
1 PROF, TECH & KIND	3079	19	347	1202	464	613	166	22	27	220	1	1	16	-
2 FARM, MAN & OFFI	3270	20	422	578	868	754	259	28	46	290	1	6	16	2
3 CLER & KINDRED	576	3	85	76	62	254	29	2	10	53	-	1	4	-
4 SALES WORKER	1115	7	145	211	177	275	181	8	13	92	-	1	12	-
5 CRAFT, FOREMEN	2123	13	453	263	214	651	135	41	64	280	-	7	14	1
6 OPERATIVES	1324	8	309	125	129	414	70	11	72	177	2	9	6	-
7 PRI HOUSEHOLD	1332	8	297	138	106	342	75	7	20	331	-	4	12	-
8 FARM LABORERS	39	0	16	2	2	3	4	-	-	5	7	-	-	-
9 LABOR EX FARM	643	4	189	59	45	159	38	3	20	92	1	31	6	-
10 ARMED FORCES	2412	15	807	194	107	346	114	10	16	187	-	4	627	-
UNKNOWN	4	0	2	1	-	-	-	-	-	-	-	-	-	1

TABLE 59
MARRIAGES BY PREVIOUS MARITAL STATUS OF COUPLE
STATE OF HAWAII, 1987

MARITAL STATUS	TOTAL		NUMBER OF MARRIAGES RECORDED				
			BRIDE'S STATUS				
	NUMBER OF MARRIAGES RECORDED	PERCENT	WIDOWED	DIVORCED	ANNULLED	NEVER MARRIED
TOTAL	16567	100	473	5930	53	10111
GROOM'S STATUS						
WIDOWED	444	3	161	218	3	62
DIVORCED	6072	37	237	3653	22	2160
ANNULLED	51	0	3	17	4	27
NEVER MARRIED	10000	60	72	2042	24	7862

TABLE 60
MARRIAGES BY NUMBER OF TIMES GROOM AND BRIDE PREVIOUSLY MARRIED
STATE OF HAWAII, 1987

MARRIAGE	TOTAL		NUMBER OF MARRIAGES RECORDED				
			MARRIAGE OF BRIDE				
	NUMBER OF MARRIAGES RECORDED	PERCENT	FIRST	SECOND	THIRD	FOURTH	FIFTH OR GREATER
TOTAL	16567	100	10111	5062	1162	195	37
MARRIAGE OF GROOM							
FIRST	10000	60	7862	1855	248	30	5
SECOND	5105	31	1902	2510	577	102	14
THIRD	1210	7	296	600	261	40	13
FOURTH	211	1	45	84	61	19	2
FIFTH OR GREATER	41	0	6	13	15	4	3

TABLE 61
MARRIAGES BY RACE AND AGE OF GROOM
STATE OF HAWAII, 1987

RACE OF GROOM	TOTAL		NUMBER OF MARRIAGES RECORDED													
			GROOM'S AGE													
	NUMBER OF MARRIAGES RECORDED	PERCENT	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	>75
TOTAL	16567	100	10	358	3380	4106	3112	2134	1357	811	484	307	232	137	76	63
CAUCASIAN	10455	63	4	126	1768	2316	1986	1540	1065	631	391	241	183	107	61	36
HAWAIIAN	1608	10	3	94	501	440	248	105	80	55	38	20	10	9	2	3
CHINESE	459	3	-	4	70	166	106	58	18	12	7	5	3	4	1	5
FILIPINO	1179	7	1	57	411	289	185	98	36	32	17	14	11	7	5	16
JAPANESE	1562	9	-	16	174	551	401	219	88	47	20	14	18	6	6	2
KOREAN	128	1	-	2	16	39	32	13	13	6	2	1	2	1	1	-
SAMOAN	189	1	-	16	76	49	24	11	7	1	2	2	-	1	-	-
BLACK	682	4	-	35	269	163	81	64	35	18	3	8	3	2	-	1
VIETNAMESE	38	0	1	1	11	14	8	2	-	1	-	-	-	-	-	-
OTHER	264	2	1	7	83	78	40	24	15	8	4	2	2	-	-	-
UNKNOWN	3	0	-	-	1	1	1	-	-	-	-	-	-	-	-	-

CAUCASIAN INCLUDES PUERTO RICAN, PORTUGUESE, MEXICAN, AND CUBAN.
HAWAIIAN INCLUDES PART-HAWAIIAN.

TABLE 61A
MARRIAGES BY RACE AND AGE OF RESIDENT GROOM
STATE OF HAWAII, 1987

RACE OF RESIDENT GROOM	TOTAL		NUMBER OF MARRIAGES RECORDED													
			GROOM'S AGE													
	NUMBER OF MARRIAGES RECORDED	PERCENT	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	>75
TOTAL	9414	100	10	329	2646	2477	1661	963	535	307	175	116	87	42	28	38
CAUCASIAN	3963	42	4	101	1161	899	656	458	291	150	94	62	43	16	14	14
HAWAIIAN	1545	16	3	93	489	419	239	101	77	52	33	18	9	8	2	2
CHINESE	373	4	-	4	63	128	88	42	16	11	6	3	3	3	1	5
FILIPINO	1123	12	1	56	392	274	177	93	34	30	15	14	11	7	4	15
JAPANESE	1417	15	-	16	156	503	362	200	74	45	19	12	17	5	6	2
KOREAN	118	1	-	2	16	36	29	12	12	6	2	1	2	1	1	-
SAMOAN	176	2	-	16	73	43	22	10	6	1	2	2	-	1	-	-
BLACK	456	5	-	33	217	109	46	27	13	5	2	2	1	1	-	-
VIETNAMESE	32	0	1	1	9	11	7	2	-	1	-	-	-	-	-	-
OTHER	208	2	1	7	69	56	34	18	12	6	2	2	1	-	-	-
UNKNOWN	3	0	-	-	1	1	1	-	-	-	-	-	-	-	-	-

CAUCASIAN INCLUDES PUERTO RICAN, PORTUGUESE, MEXICAN, AND CUBAN.
HAWAIIAN INCLUDES PART-HAWAIIAN.

TABLE 62
MARRIAGES BY RACE AND AGE OF BRIDE
STATE OF HAWAII, 1987

RACE OF BRIDE	TOTAL		NUMBER OF MARRIAGES RECORDED														
	NUMBER OF MARRIAGES RECORDED	PERCENT	BRIDE'S AGE														
			<15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	>75
TOTAL	16567	100	1	143	899	4199	4482	2956	1743	927	563	282	168	102	64	22	16
CAUCASIAN	9755	59	1	48	379	2057	2505	1912	1234	695	419	221	118	77	56	19	14
HAWAIIAN	1705	10	-	39	235	634	408	183	90	50	37	10	11	5	2	1	-
CHINESE	535	3	-	1	13	136	180	113	49	18	10	4	3	3	1	2	2
FILIPINO	1512	9	-	34	130	577	373	185	101	42	38	14	10	7	1	-	-
JAPANESE	1848	11	-	8	48	405	712	376	152	74	30	13	18	8	4	-	-
KOREAN	290	2	-	-	8	57	86	63	37	20	5	11	2	1	-	-	-
SAMOAN	155	1	-	6	18	71	27	11	10	4	5	1	2	-	-	-	-
BLACK	413	2	-	4	35	159	104	57	28	14	8	-	3	1	-	-	-
VIETNAMESE	58	0	-	-	5	18	14	7	12	1	1	-	-	-	-	-	-
OTHER	293	2	-	3	28	84	71	49	30	9	10	8	1	-	-	-	-
UNKNOWN	3	0	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-

CAUCASIAN INCLUDES PUERTO RICAN, PORTUGUESE, MEXICAN, AND CUBAN.
HAWAIIAN INCLUDES PART-HAWAIIAN.

TABLE 62A
MARRIAGES BY RACE AND AGE OF RESIDENT BRIDE
STATE OF HAWAII, 1987

RACE OF RESIDENT BRIDE	TOTAL		NUMBER OF MARRIAGES RECORDED													
	NUMBER OF MARRIAGES RECORDED	PERCENT	BRIDE'S AGE													
			15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	>75
TOTAL	9314	100	130	764	2898	2482	1416	797	377	205	103	65	45	18	6	8
CAUCASIAN	3361	36	37	270	965	804	535	376	178	82	51	23	21	10	3	6
HAWAIIAN	1643	18	39	235	612	387	172	85	48	37	10	10	5	2	1	-
CHINESE	404	4	1	13	112	129	83	33	14	6	3	2	3	1	2	2
FILIPINO	1381	15	33	127	541	332	165	84	36	34	13	8	7	1	-	-
JAPANESE	1634	18	8	45	368	618	326	134	67	28	11	17	8	4	-	-
KOREAN	249	3	-	8	49	69	58	32	18	3	9	2	1	-	-	-
SAMOAN	148	2	6	18	67	25	11	9	4	5	1	2	-	-	-	-
BLACK	212	2	3	21	101	49	23	7	7	-	-	1	-	-	-	-
VIETNAMESE	50	1	-	4	13	12	7	12	1	1	-	-	-	-	-	-
OTHER	229	2	3	23	69	55	36	25	4	9	5	-	-	-	-	-
UNKNOWN	3	0	-	-	1	2	-	-	-	-	-	-	-	-	-	-

CAUCASIAN INCLUDES PUERTO RICAN, PORTUGUESE, MEXICAN, AND CUBAN.
HAWAIIAN INCLUDES PART-HAWAIIAN.

TABLE 63
MARRIAGES BY RESIDENCE COUNTY OF GROOM AND BRIDE
STATE OF HAWAII, 1987

COUNTY	TOTAL		NUMBER OF MARRIAGES RECORDED						
			BRIDE'S RESIDENCE						
	NUMBER OF MARRIAGES RECORDED	PERCENT	HONOLULU	HAWAII	MAUI	KAUAI	MAINLAND	FOREIGN	UNKNOWN
TOTAL	16567	100	7199	886	810	413	6447	806	6
GROOM'S RESIDENCE									
HONOLULU	7292	44	6875	21	14	14	264	103	1
HAWAII	880	5	19	848	2	1	6	4	-
MAUI	814	5	24	2	776	-	10	1	1
KALAWAO	1	0	1	-	-	-	-	-	-
KAUAI	417	3	12	-	1	391	9	4	-
UNKNOWN	11	0	4	-	3	-	-	-	4
MAINLAND	6420	39	213	14	11	6	6134	42	-
FOREIGN	732	4	51	1	3	1	24	652	-

TABLE 63A
MARRIAGES BY GEOGRAPHIC AREA OF RESIDENCE OF GROOM AND BRIDE
STATE OF HAWAII, 1987

GEOGRAPHIC AREA	TOTAL		NUMBER OF MARRIAGES RECORDED										
			BRIDE'S RESIDENCE										
	NUMBER OF MARRIAGES RECORDED	PERCENT	HONOLULU	OAHU RURAL	HILO	BIG ISLAND RURAL	MAUI	LANAI	MOLOKAI	KAUAI	MAINLAND	FOREIGN	UNKNOWN
TOTAL	16567	100	3308	3891	274	612	768	6	36	413	6447	806	6
GROOM'S RESIDENCE													
HONOLULU	3068	19	2654	305	3	5	4	-	1	7	44	45	-
OAHU RURAL	4224	25	490	3426	6	7	8	-	1	7	220	58	1
HILO	275	2	4	3	224	39	1	-	-	-	2	2	-
BIG ISLAND RURAL	605	4	8	4	32	553	1	-	-	1	4	2	-
MAUI	771	5	10	10	2	-	738	-	-	-	9	1	1
LANAI	8	0	1	-	-	-	1	6	-	-	-	-	-
MOLOKAI	36	0	1	3	-	-	-	-	31	-	1	-	-
KAUAI	417	3	7	5	-	-	-	-	1	391	9	4	-
UNKNOWN	11	0	1	3	-	-	3	-	-	-	-	-	4
MAINLAND	6420	39	100	113	6	8	9	-	2	6	6134	42	-
FOREIGN	732	4	32	19	1	-	3	-	-	1	24	652	-

TABLE 64
MARRIAGES BY RACE OF GROOM AND RACE OF BRIDE
STATE OF HAWAII, 1987

ALL COUPLES	TOTAL		NUMBER OF MARRIAGES RECORDED										
			RACE OF BRIDE										
	NUMBER OF MARRIAGES RECORDED	PERCENT	CAUC	HAW'N	CHIN	FIL'A	JAP'N	KOR'N	SAM'N	BLACK	VIET	OTHER	UNK
TOTAL	16567	100	9755	1705	535	1512	1848	290	155	413	58	293	3
RACE OF GROOM													
CAUCASIAN	10455	63	8562	422	181	471	460	118	25	70	26	120	-
HAWAIIAN	1608	10	368	743	39	185	210	15	18	4	3	23	-
CHINESE	459	3	83	36	182	21	114	14	-	-	2	7	-
FILIPINO	1179	7	207	177	21	642	100	15	4	2	-	11	-
JAPANESE	1562	9	214	168	100	107	895	59	2	2	2	13	-
KOREAN	128	1	17	10	4	6	27	64	-	-	-	-	-
SAMOAN	189	1	35	47	-	11	6	-	83	2	-	5	-
BLACK	682	4	188	51	2	49	18	3	17	329	3	22	-
VIETNAMESE	38	0	2	1	3	2	5	-	1	1	22	1	-
OTHER	264	2	79	50	3	18	13	2	5	3	-	91	-
UNKNOWN	3	0	-	-	-	-	-	-	-	-	-	-	3

CAUCASIAN INCLUDES PUERTO RICAN, PORTUGUESE, MEXICAN, AND CUBAN.
HAWAIIAN INCLUDES PART-HAWAIIAN.

TABLE 64A
MARRIAGES BY RACE OF RESIDENT GROOM AND RACE OF BRIDE
STATE OF HAWAII, 1987

RACE OF RESIDENT GROOM	TOTAL		NUMBER OF MARRIAGES RECORDED										
			RACE OF BRIDE										
	NUMBER OF MARRIAGES RECORDED	PERCENT	CAUC	HAW'N	CHIN	FIL'A	JAP'N	KOR'N	SAM'N	BLACK	VIET	OTHER	UNK
TOTAL	9414	100	3473	1613	400	1380	1617	253	143	248	51	233	3
CAUCASIAN	3963	42	2498	365	108	393	337	95	21	40	23	83	-
HAWAIIAN	1545	16	336	725	39	180	204	14	17	4	3	23	-
CHINESE	373	4	57	35	140	17	105	11	-	-	2	6	-
FILIPINO	1123	12	190	176	18	611	98	13	4	2	-	11	-
JAPANESE	1417	15	175	166	87	99	813	58	2	2	2	13	-
KOREAN	118	1	15	10	3	6	25	59	-	-	-	-	-
SAMOAN	176	2	32	45	-	11	5	-	77	1	-	5	-
BLACK	456	5	118	44	1	43	16	2	16	196	3	17	-
VIETNAMESE	32	0	2	1	2	2	4	-	1	1	18	1	-
OTHER	208	2	50	44	2	18	10	1	5	2	-	74	-
UNKNOWN	3	0	-	-	-	-	-	-	-	-	-	-	3

CAUCASIAN INCLUDES PUERTO RICAN, PORTUGUESE, MEXICAN, AND CUBAN.
HAWAIIAN INCLUDES PART-HAWAIIAN.

TABLE 64B
MARRIAGES BY RACE OF GROOM AND RACE OF RESIDENT BRIDE
STATE OF HAWAII, 1987

RESIDENT BRIDES	TOTAL		NUMBER OF MARRIAGES RECORDED										
	NUMBER OF MARRIAGES RECORDED	PERCENT	RACE OF BRIDE										
			CAUC	HAW'N	CHIN	FIL'A	JAP'N	KOR'N	SAM'N	BLACK	VIET	OTHER	UNK
TOTAL	9314	100	3361	1643	404	1381	1634	249	148	212	50	229	3
RACE OF GROOM													
CAUCASIAN	3898	42	2409	382	116	384	345	93	22	41	22	84	-
HAWAIIAN	1540	17	326	729	39	181	205	15	17	4	3	21	-
CHINESE	371	4	54	35	137	19	106	12	-	-	2	6	-
FILIPINO	1118	12	184	174	17	615	98	13	4	2	-	11	-
JAPANESE	1424	15	171	168	88	100	824	55	2	1	2	13	-
KOREAN	115	1	15	10	3	6	24	57	-	-	-	-	-
SAMOAN	178	2	28	47	-	11	5	-	81	1	-	5	-
BLACK	428	5	122	49	1	45	13	3	16	160	2	17	-
VIETNAMESE	32	0	2	1	2	2	4	-	1	1	19	-	-
OTHER	207	2	50	48	1	18	10	1	5	2	-	72	-
UNKNOWN	3	0	-	-	-	-	-	-	-	-	-	-	3

CAUCASIAN INCLUDES PUERTO RICAN, PORTUGUESE, MEXICAN, AND CUBAN.
HAWAIIAN INCLUDES PART-HAWAIIAN.

TABLE 65
OUTMARRIAGES BY RACE OF RESIDENT BRIDE
STATE OF HAWAII, 1987

RACE OF RESIDENT BRIDE	TOTAL		NUMBER OF MARRIAGES RECORDED	
	NUMBER OF MARRIAGES RECORDED	PERCENT	BRIDE	
			OUT MARRIAGE	IN MARRIAGE
TOTAL	9314	100	4208	5106
CAUCASIAN	3361	36	952	2409
HAWAIIAN	1643	18	914	729
CHINESE	404	4	267	137
FILIPINO	1381	15	766	615
JAPANESE	1634	18	810	824
KOREAN	249	3	192	57
SAMOAN	148	2	67	81
BLACK	212	2	52	160
VIETNAMESE	50	1	31	19
OTHER	229	2	157	72
UNKNOWN	3	0	-	3

CAUCASIAN INCLUDES PUERTO RICAN, PORTUGUESE, MEXICAN, AND CUBAN.
HAWAIIAN INCLUDES PART-HAWAIIAN.

TABLE 65A
OUTMARRIAGES BY RACE OF RESIDENT GROOM
STATE OF HAWAII, 1987

RACE OF RESIDENT GROOM	TOTAL		NUMBER OF MARRIAGES RECORDED	
	NUMBER OF MARRIAGES RECORDED	PERCENT	GROOM	
			OUT MARRIAGE	IN MARRIAGE
TOTAL	9414	100	4200	5214
CAUCASIAN	3963	42	1465	2498
HAWAIIAN	1545	16	820	725
CHINESE	373	4	233	140
FILIPINO	1123	12	512	611
JAPANESE	1417	15	604	813
KOREAN	118	1	59	59
SAMOAN	176	2	99	77
BLACK	456	5	260	196
VIETNAMESE	32	0	14	18
OTHER	208	2	134	74
UNKNOWN	3	0	-	3

CAUCASIAN INCLUDES PUERTO RICAN, PORTUGUESE, MEXICAN, AND CUBAN.
HAWAIIAN INCLUDES PART-HAWAIIAN.

TABLE 66
MARRIAGES OF FOREIGN-RESIDENT GROOMS
STATE OF HAWAII, 1987

RACE OF GROOM	TOTAL	
	NUMBER OF MARRIAGES RECORDED	PERCENT
CAUCASIAN	684	85
HAWAIIAN	5	1
CHINESE	30	4
FILIPINO	13	2
JAPANESE	39	5
KOREAN	4	0
SAMOAN	2	0
BLACK	11	1
VIETNAMESE	3	0
OTHER	15	2

CAUCASIAN INCLUDES PUERTO RICAN, PORTUGUESE, MEXICAN, AND CUBAN.
HAWAIIAN INCLUDES PART-HAWAIIAN.

TABLE 66A
MARRIAGES OF FOREIGN-RESIDENT BRIDES
STATE OF HAWAII, 1987

RACE OF BRIDE	TOTAL	
	NUMBER OF MARRIAGES RECORDED	PERCENT
CAUCASIAN	610	76
HAWAIIAN	1	0
CHINESE	44	5
FILIPINO	40	5
JAPANESE	65	8
KOREAN	14	2
SAMOAN	4	0
BLACK	7	1
VIETNAMESE	1	0
OTHER	20	2

CAUCASIAN INCLUDES PUERTO RICAN, PORTUGUESE, MEXICAN, AND CUBAN.
HAWAIIAN INCLUDES PART-HAWAIIAN.

TABLE 67
DIVORCES AND ANNULMENTS BY PLACE AND MONTH OF OCCURRENCE
STATE OF HAWAII, 1987

COUNTY OF OCCURRENCE		YEAR		MONTH OF OCCURRENCE											
		NUMBER	RATE*	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
STATE OF HAWAII	NUMBER	4,419	4.1	298	349	297	381	376	328	336	292	396	481	379	506
	PERCENT	100.0		6.7	7.9	6.7	8.6	8.5	7.4	7.6	6.6	9.0	10.9	8.6	11.5
HAWAII		499	4.3	35	32	49	66	44	39	29	40	35	27	42	62
HONOLULU		3,326	4.0	218	275	202	259	279	230	262	217	306	395	299	384
KAUAI		183	3.8	13	17	19	17	13	24	10	10	17	19	13	11
MAUI		411	4.6	32	25	28	39	40	35	35	25	38	40	25	49
UNKNOWN															

*RATE PER 1,000 RESIDENT POPULATION

TABLE 68
DIVORCES AND ANNULMENTS BY NUMBER OF CHILDREN REPORTED UNDER 18 YEARS
STATE OF HAWAII, 1987

TYPE OF DECREE		TOTAL		NUMBER OF CHILDREN REPORTED UNDER 18 YEARS OF AGE											
		NUMBER	PERCENT	NONE	1	2	3	4	5	6	7	8	9	> 9	UNKNOWN
TOTAL	NUMBER	4,419	100.0	2131	1090	812	280	73	20	3	1		1		8
	PERCENT	100.0		48.2	24.7	18.4	6.3	1.7	.5	.1					.2
DIVORCES		4,404	99.7	2121	1086	812	280	72	20	3	1		1		8
ANNULMENTS		15	.3	10	4			1							
UNKNOWN															

TABLE 69
DIVORCES AND ANNULMENTS BY RACE AND AGE OF HUSBAND
STATE OF HAWAII, 1987

RACE OF HUSBAND		ALL AGES		AGE OF HUSBAND														
		NUMBER	PERCENT	UNDER 18	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 & OVER	UNKNOWN
ALL RACES	NUMBER	4,419	100.0	1	8	391	846	924	839	586	327	180	103	68	60	27	24	35
	PERCENT	100.0			.2	8.8	19.1	20.9	19.0	13.3	7.4	4.1	2.3	1.5	1.4	.6	.5	.8
CAUCASIAN		2,185	49.4	1	6	239	421	428	436	291	144	77	48	31	31	11	8	13
HAWAIIAN		67	1.5			5	11	7	13	7	13	5	2	2	1	1		
PART HAWAIIAN		445	10.1		1	36	96	96	75	62	33	17	11	9	4	1	1	3
CHINESE		150	3.4			3	19	31	31	26	13	13	4	3	3	3		1
FILIPINO		427	9.7		1	39	90	92	71	49	31	25	11	3	3	2	11	3
JAPANESE		573	13.0			19	65	148	137	88	92	21	15	14	9	5	1	3
PUERTO RICAN		48	1.1			3	15	7	4	6	3	2	2	2				2
KOREAN		78	1.8			4	8	15	17	13	7	3	4	2	1	2	1	1
SAMOAN		44	1.0			3	13	8	5	6	4	1			3			1
NEGRO		209	4.7			32	68	55	19	14	8	2	3		3		1	4
PORTUGUESE		86	1.9			7	10	15	10	14	7	11	3	2	2	3	1	
VIETNAMESE		13	.3				5	2	5		1							
OTHER RACES		91	2.1			9	23	20	14	10	10	1						4
UNKNOWN		5	.1				2				1	2						

TABLE 70
DIVORCES AND ANNULMENTS BY RACE AND AGE OF WIFE
STATE OF HAWAII, 1967

RACE OF WIFE		ALL AGES		AGE OF WIFE														
		NUMBER	PERCENT	UNDER 18	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 & OVER	UNKNOWN
ALL RACES	NUMBER	4,419	100.0	6	32	649	980	1001	734	466	244	116	71	51	17	9		43
	PERCENT	100.0		.1	.7	14.7	22.2	22.7	16.6	10.5	5.5	2.6	1.6	1.2	.4	.2		1.0
CAUCASIAN		2,025	45.8	3	21	335	439	441	323	229	106	49	30	21	10	5		15
HAWAIIAN		44	1.0			5	8	12	6	4	5	2		1				1
PART HAWAIIAN		479	10.8	1	4	79	132	101	67	42	22	13	9	6				3
CHINESE		158	3.6		1	10	25	45	35	19	11	3	2	3	2			2
FILIPINO		468	10.6	1	1	80	116	97	72	47	20	11	4	2		2		13
JAPANESE		647	14.6			44	132	101	134	74	44	20	16	15	4	2		1
PUERTO RICAN		34	.8			4	6	8	6	6	1	2						1
KOREAN		197	4.5			18	34	56	36	22	22	4	2	1				
SAMOAN		32	.7			7	9	9	1	2	1		1		1			1
NEGRO		143	3.2	1	1	41	47	32	5	3	4	5		1				2
PORTUGUESE		66	1.5			12	9	13	11	4	7	3	6	1				
VIETNAMESE		37	.8			6	6	7	12	6	1	1						
OTHER RACES		83	1.9		2	9	16	19	23	7	2	4	1					3
UNKNOWN		6	.1			1	1		1	1		1						1

TABLE 71
DIVORCES AND ANNULMENTS BY RACE OF HUSBAND AND OF WIFE
STATE OF HAWAII, 1967

RACE OF HUSBAND		ALL RACES		RACE OF WIFE														
		NUMBER	PERCENT	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER RACES	UNKNOWN	
ALL RACES	NUMBER	4,419	100.0	2025	44	479	158	468	647	34	197	32	143	[illegible]	37	83	6	
	PERCENT	100.0		45.8	1.0	10.8	3.6	10.6	14.6	.8	4.5	.7	3.2	1.5	.8	1.9	.1	
CAUCASIAN		2,185	49.4	1816	11	88	42	118	150	4	71	5	14	12	16	37	1	
HAWAIIAN		67	1.5	20	16	19		7	5		2				1	1		
PART HAWAIIAN		445	10.1	102	3	181	12	50	55	9	17	2	1	11		7		
CHINESE		150	3.4	29		13	57	4	33		7			2	4		1	
FILIPINO		427	9.7	65	3	56	4	230	42	2	13	3		7		2		
JAPANESE		573	13.0	84		50	35	21	332	2	32	2	1	9	4	5		
PUERTO RICAN		48	1.1	11		13	2	5	1	12			3			1		
KOREAN		78	1.8	6	1	4	1	1	7		57					1		
SAMOAN		44	1.0	8	2	11			4	1		17				1		
NEGRO		209	4.7	38	2	13	1	10	7	1	3	1	122	1	1	9		
PORTUGUESE		84	1.9	12	4	20	2	14	5	1				26				
VIETNAMESE		13	.3				1					1			11			
OTHER RACES		91	2.1	34	2	15	1	6	6	2		1	2	2		19	1	
UNKNOWN		5	.1					2									3	

TABLE 72

DIVORCES AND ANNULMENTS BY LEGAL GROUNDS AND DURATION OF MARRIAGE
STATE OF HAWAII, 1987

LEGAL GROUNDS		TOTAL		DURATION OF MARRIAGE IN YEARS														
		NUMBER	PERCENT	UNDER 1	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & OVER	UNKNOWN
DIVORCES & ANNULMENTS	NUMBER	4,419	100.0	157	370	469	434	422	1270	678	363	189	60	1			6
	PERCENT	100.0		3.6	8.4	10.6	9.8	9.5	28.7	15.3	8.2	4.3	1.4				.1
ABSOLUTE DIVORCES *		4,404	99.7	153	368	466	431	421	1269	678	363	189	59	1			6
PARR. IRRETR. BROKEN		4,376	99.0	153	367	466	430	417	1262	672	357	188	57	1			6
SEPARATION		25	.6				1	4	7	6	5	1	1				
GRIEV. MENTAL SUFF.		3	.1		1						1		1				
OTHER																	
UNKNOWN																	
ANNULMENTS		15	.3	4	2	3	3	1	1				1				
MINOR		1		1													
UNDIV. SPOUSE ALIVE		11	.2	2	1	3	3	1					1				
DID NOT COHABIT		1							1								
FAILURE TO PROVIDE																	
PHYS. INCOMPATIBLE		1		1													
FRAUD		1			1												
OTHER																	
UNKNOWN																	

* INCLUDES TYPE OF DECREE UNSPECIFIED.

TABLE 73

DIVORCES AND ANNULMENTS BY EDUCATION OF HUSBAND AND OF WIFE
STATE OF HAWAII, 1987

EDUCATION OF HUSBAND YEARS OF SCHOOL		TOTAL		EDUCATION OF WIFE - YEARS IN SCHOOL												
					GRADE SCHOOL								COLLEGE			UNKNOWN
		NUMBER	PERCENT	NONE	1-4	5-6	7-8	9	10	11	12	1-3	4	5+	
TOTAL	NUMBER	4,419	100.0	6	22	45	45	79	127	149	1989	1148	502	211	100
	PERCENT	100.0		.1	.5	1.0	1.0	1.7	2.9	3.4	45.0	26.0	11.4	4.8	2.3
NONE		1			1										
GRADE SCHOOL: 1 - 4		17	.4		1	3	1	2	1	1	2	1	1		4
5 - 6		32	.7		3	4	2	2	1	2	8	5	3		2
7 - 8		46	1.0				4	3	3	1	21	5	2	1	6
9		63	1.4			1	2	5	5	4	33	11	1		1
10		84	1.9			2		7	6	3	43	17	1	2	1
11		168	3.8	1	1			3	10	24	88	34	1	2	4
12		1,947	44.1	3	10	17	23	33	69	74	1177	382	101	19	43
COLLEGE: 1 - 3		1,000	22.6		2	8	4	12	17	19	354	399	125	40	20
4		577	13.1		1	2	2	2	5	4	134	165	186	46	8
5+		329	7.4		1	1	2	1	3	6	57	85	67	97	5
UNKNOWN		159	3.6	2	2	7	5	3	6	11	72	26	12	2	9

TABLE 74
DIVORCES AND ANNULMENTS BY RESIDENCE OF HUSBAND AND OF WIFE
STATE OF HAWAII, 1987

RESIDENCE OF HUSBAND	TOTAL RECORDED	TOTAL	RESIDENCE OF WIFE: STATE OF HAWAII												NOT-RESIDENT
			COUNTY OF HAWAII			COUNTY OF HONOLULU			COUNTY OF KAUAI	COUNTY OF MAUI				UNKNOWN	
			TOTAL	HILO	BAL.	TOTAL	HON.	BAL.		TOTAL	MAUI	LANAI	MOLOKAI		
TOTAL RECORDED	4,419	3,898	460	151	309	2,882	1,418	1,464	164	363	355	1	7	29	521
STATE OF HAWAII	3,827	3,316	411	136	275	2,415	1,194	1,221	146	316	308	1	7	28	511
COUNTY OF HAWAII	432	396	354	119	235	30	14	16	3	8	7		1	1	36
CITY OF HILO	134	125	113	83	25	9	4	5		2	1		1	1	9
BALANCE OF COUNTY	298	271	241	31	210	21	10	11	3	6	6				27
COUNTY OF HONOLULU	2,832	2,416	41	14	27	2,322	1,145	1,177	10	22	22			21	416
CITY OF HONOLULU	1,330	1,162	23	8	15	1,113	646	265	5	14	14			7	168
BALANCE OF COUNTY	1,502	1,254	18	6	12	1,209	297	912	5	8	8			14	248
COUNTY OF KAUAI	162	149	3	1	2	14	9	5	128	4	4				13
COUNTY OF MAUI	351	308	7		7	19	11	8	3	275	269		6	4	43
ISLAND OF MAUI	338	298	7		7	16	8	8	3	268	268			4	40
ISLAND OF LANAI	1														1
ISLAND OF MOLOKAI	12	10				3	3			7	1		6		2
UNKNOWN	90	47	6	2	4	30	15	15	2	7	6	1		2	3
NONRESIDENT	592	582	49	15	34	467	224	243	18	47	47			1	10

TABLE 75
DIVORCES AND ANNULMENTS BY AGE OF HUSBAND AND OF WIFE
STATE OF HAWAII, 1987

AGE OF HUSBAND		ALL AGES		AGE OF WIFE														
		NUMBER	PERCENT	UNDER 18	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 & OVER	UNKNOWN
ALL AGES	NUMBER	4,419	100.0	6	32	649	980	1001	734	466	244	116	71	51	17	9		43
	PERCENT	100.0		.1	.7	14.7	22.2	22.7	16.6	10.5	5.5	2.6	1.6	1.2	.4	.2		1.0
UNDER 18		1										1						
18 - 19		8	.2		1	6	1											
20 - 24		391	8.8	5	20	269	60	16	11	2	2							6
25 - 29		846	19.1		5	267	412	108	30	6	4	1						9
30 - 34		924	20.9		5	67	311	399	97	29	6	4		1				5
35 - 39		839	19.0			20	115	308	302	69	17	5						3
40 - 44		586	13.3	1		10	51	103	188	191	31	4	2					5
45 - 49		327	7.4			2	11	33	58	98	100	16	5	1				3
50 - 54		180	4.1			1	6	11	20	37	50	41	9	3				2
55 - 59		103	2.3			2	3	7	9	19	17	18	23	4				1
60 - 64		68	1.5			1	1	4	2	5	7	11	13	15	2			4
65 - 69		60	1.4					1	5	5	7	4	9	16	8	3		2
70 - 74		27	.6				1					6	5	4	6	5		
75 & OVER		24	.5				2	2	4			3	4	4	1	1		3
UNKNOWN		35	.8		1	4	6	5	5	3	3		1					

HAWAII TUMOR REGISTRY

The total number of resident cancer cases reported in Hawaii in 1986 (the most recent year of complete registration) was 3,576. This represented 6.3 percent increase over the 3,363 cases reported in 1985. The 1,775 new male cases represented an increase of 28 cases, or 1.6 percent, over the total of the previous year. The 1,801 new female cases represented an increase of 185, or 11.4 percent, over the total of the previous year.

The sites of the three most common cancers among resident males in 1986 continued to be prostate (298), lung (290) and colon (209), in that order. Among resident females, the sites of the three most common cancers in 1986 were breast (584), uterus (206 - corpus and cervix combined), and colon (173).

The decrease in lung cancer cases registered for males and females combined which occurred in 1985 was short-lived. Total lung cancer cases for both sexes was up to 452 cases in 1986 compared to 401 in 1985. The increase was due primarily to the increase in female lung cancer cases.

As in 1985, cancer of the prostate was the most common cancer among Caucasian, Filipino, Chinese, and Japanese males in 1986. Lung cancer continued to be the most common cancer among the Hawaiian. For the second consecutive year there was more breast cancer among Japanese women (199) than among Caucasian women (183).

The median age at diagnosis for resident males in 1986 was 67.8 years, up very slightly from the 67.5 years for 1985. The median age at diagnosis for resident females in 1986 was 59.0 years, compared to the 1985 figure of 60.5 years.

TABLE 1

COMMON CANCERS REPORTED BY SITE AND RACE
MALE RESIDENTS
STATE OF HAWAI'I 1986

	Total All Races	RACE					
		Caucasian	Chinese	Filipino	Hawaiian	Japanese	Others
Total All Sites	1,775	591	99	211	198	537	139
SITE							
Bladder	90	40	5	7	2	29	7
Colon	209	58	12	23	17	94	5
Hematopoietic	56	12	6	14	9	11	6
Lung	290	99	13	28	51	77	22
Skin	100	73	2	1	3	9	12
Prostate	298	100	24	49	21	82	22
Rectum	127	23	8	21	10	58	7
Stomach	112	20	9	8	11	49	15
Other Sites	491	166	20	60	74	128	43

TABLE 2

COMMON CANCERS REPORTED BY SITE AND RACE
FEMALE RESIDENTS
STATE OF HAWAI'I 1986

	Total All Races	RACE					
		Caucasian	Chinese	Filipino	Hawaiian	Japanese	Others
Total All Sites	1,801	592	127	147	213	544	178
SITE							
Breast	584	183	44	29	80	199	49
Cervix	102	38	6	15	12	12	19
Uterus	104	32	3	8	13	40	8
Colon	173	51	14	13	12	76	7
Lung	162	71	10	14	29	24	14
Ovary	64	14	3	11	11	23	2
Rectum	51	13	11	2	1	17	7
Stomach	68	9	1	2	7	36	13
Thyroid	74	15	2	22	6	12	17
Other Sites	419	166	33	31	42	105	42

TABLE 3

TUMOR REGISTRATIONS
AGE AT DIAGNOSIS BY RACE
MALE RESIDENTS
STATE OF HAWAI'I 1986

	Total All Races	RACE					
		Caucasian	Chinese	Filipino	Hawaiian	Japanese	Others
Total All Ages	1,775	591	99	211	198	537	139
AGE							
< 1 Year	4	2	0	0	0	1	1
1 - 4 Years	10	1	0	2	5	0	2
5 - 14 Years	10	0	1	0	6	1	2
15 - 24 Years	22	9	0	1	4	3	5
25 - 34 Years	55	26	3	2	8	3	13
35 - 44 Years	90	37	8	11	11	8	15
45 - 54 Years	149	52	3	11	33	35	15
55 - 64 Years	383	143	11	35	46	112	36
65 - 74 Years	591	193	32	42	64	225	35
75+ Years	460	128	41	107	21	149	14
Unknown	1	0	0	0	0	0	1

TABLE 4

TUMOR REGISTRATIONS
AGE AT DIAGNOSIS BY RACE
FEMALE RESIDENTS
STATE OF HAWAI'I 1986

	Total All Races	RACE					
		Caucasian	Chinese	Filipino	Hawaiian	Japanese	Others
Total All Ages	1,801	592	127	147	213	544	178
AGE							
< 1 Year	3	3	0	0	0	0	0
1 - 4 Years	4	3	0	0	0	0	1
5 - 14 Years	10	1	0	0	5	2	2
15 - 24 Years	25	13	2	3	5	0	2
25 - 34 Years	102	41	1	10	10	13	27
35 - 44 Years	186	68	5	24	25	27	37
45 - 54 Years	261	73	17	28	42	69	32
55 - 64 Years	441	121	34	37	56	157	36
65 - 74 Years	440	157	34	22	41	154	32
75+ Years	329	112	34	23	29	122	9

HEALTH PROMOTION AND EDUCATION OFFICE

HPEO REPORT - 1987 STATISTICAL ANNUAL REPORT

The Behavioral Risk Factor Surveillance System (BRFSS) was initiated in Hawaii in 1986 by the Health Promotion and Education Office with the assistance of the Centers for Disease Control (CDC). The BRFSS is designed to collect information on health risk behaviors of Hawaii adult residents and to monitor the prevalence of these behaviors over time. The risk factors surveyed are major contributors to premature death and disability. They include cigarette smoking, hypertension, obesity, physical inactivity, seatbelt nonuse, and alcohol misuse.

The BRFSS is comprised of monthly telephone surveys following a recommended CDC sampling procedure which uses a version of random-digit dialing based on clusters of telephone numbers. The sampling frame was stratified by island to obtain information specific to each island as well as to the population as a whole. Molokai and Lanai were combined. Niihau lacks telephone service and, therefore, was not included in the survey.

The Behavioral Risk Factor Survey has a number of questions which were selected for comparability from national surveys. Similar methods used each year by states conducting this CDC-sponsored survey also allow for comparisons of risk factor prevalence and the monitoring of trends over time.

The Hawaii sample was drawn from all residents over the age of 18, excluding institutionalized persons and on-base military personnel. One thousand eight hundred and seventy (1,870) interviews were completed over a 12-month period from January through December, 1987. Highlights of the 1987 data are cited here.

Seatbelt Nonuse

An estimated seven percent (7.3%) of Hawaii's population sometimes, seldom or never use seatbelts when driving or riding in a car. Among islands, there were significant differences in seatbelt use. Two neighbor islands, Molokai/Lanai and Maui, had the highest prevalence of those at risk. Demographic groups at risk due to seatbelt nonuse were Hawaiians/Part Hawaiians, and Caucasians; persons who were out of work; technical school graduates; persons who were divorced, widowed, and those who were members of an unmarried couple; and households with incomes of less than $10,000 per year. Males had a nonuse rate almost twice that of females. There were no significant differences in seatbelt nonuse by age.

Hypertension

An estimated twenty one percent (21.4%) of respondents reported being told that they have high blood pressure, with 34.8% being told this only once, and 64.9% being told this more than once. Of those respondents who indicated they were hypertensive, 52.3% had been prescribed medication, with 89.1% of that number still taking the prescribed medication.

Survey respondents were defined as "Current Hypertensives" if: 1) they reported having been told more than once that their blood pressure is high, 2) they were on medication at the time, or 3) they reported their blood pressure is still high. In 1987, 15.7% of the adult population had current hypertension. The frequency of current hypertension increased with age from 4% for those 18-24 years of age to 38.2% for those 65 years of age and older. With the exception of those having attended technical school, hypertension decreased as the level of education increased. By employment status, retired persons had the highest percentage of risk (a factor probably confounded with age). Those out of work for more than one year and homemakers were at high risk as well as those with incomes of less than $10,000 a year. There were no significant differences in those at risk by island or by sex.

Sedentary Lifestyle

Respondents who reported levels of physical activity less than three times a week or less than 20 minutes per occasion were considered to have sedentary lifestyles.

The percentage of adults in Hawaii having sedentary lifestyles was 51.7% in 1987. Groups with the highest risks included persons with eighth grade or less education, and those with some high school; Filipinos and Japanese; and persons employed for wages and the self employed. Females had a slightly higher rate than males. The rate of sedentary lifestyle increased with age up through age group 45-54, and decreased thereafter. There were no significant differences by island, marital status, and household income.

The top ten activities for those who exercise were walking (31.8%), gardening (13.6%), jogging/running (12.2), swimming (9.6%), aerobics (7.4%), golf (6.2%), weight lifting (6.0%), calisthenics (5.1%), bicycling (4.5%), and tennis (3.7%).

Obesity

Persons at risk due to obesity were identified as those respondents who were 120% or more of their ideal weight. Ideal weight was defined at the "mid-value of a medium frame person from the Metropolitan height-weight tables."

The rate of obesity among adults in Hawaii was 18.1% in 1987. High rates of obesity were found on Molokai/Lanai; among Hawaiians/Part Hawaiians; in persons with some high school education and high school graduates; and in those persons who were divorced or married. Men had a much higher rate than women. The rate of obesity increased up through the 35-44 age group, and then decreased. There were no significant differences by employment status or household income.

About 38% of the adult population were trying to lose weight. Of those, 67% were eating fewer calories, and 46.2% had increased their level of physical activity.

Cigarette Smoking

Persons at risk due to cigarette smoking were identified as current regular smokers ("ever smoked 100 cigarettes and smokes now").

The smoking rate among adults in Hawaii was 22.3%. Groups found to be at high risk due to smoking were Hawaiians/Part Hawaiians, and Caucasians; those who were unemployed for less than one year, and the self employed; persons who were separated, divorced, and members of an unmarried couple; and persons with some high school education, high school graduates, and persons with some technical school education. Men had a slightly higher rate than women. The smoking rate increased with age through the 45-54 group, and then decreased. Among the islands, Maui had the highest rate of those at risk. There were no significant differences by household income.

Of those who smoked, 49.2% smoked less than one pack daily, 44.3% smoked on the average of one to two packs a day, and 5.2% smoked more than 2 packs a day. About 43% of the respondents who were cigarette smokers said they had stopped smoking for at least a week during the past year. Findings also indicate that as people age, fewer try to stop smoking.

Alcohol Misuse

Acute or binge drinking was defined as "having five or more drinks on a given occasion, one or more time in the past month."

The binge drinking rate in 1987 was 22.65. Men were about three and a half times more likely to be binge drinkers than women. Binge drinking is more frequent among the young and decreases with age. Groups with the highest risks were Hawaiians/Part Hawaiians, and Caucasians; those with some high school education, high school graduates and technical school graduates; those who were unemployed for less than a year, employed for wages and the self employed; those who were never married, separated, and divorced. No significant differences were found by island or household income.

Heavier drinking was defined as having "an average of two or more drinks per day during the past month."

The heavier drinking rate in 1987 was 8.9%. Men had a rate more than five and a half times that of women. High rates were also found on Hawaii, Maui, and Molokai/Lanai; among Hawaiians/Part Hawaiians, and Caucasians; among the self employed, and those out of work for less than one year; and in divorced persons. The rates were slightly higher in the 55-64 and the 35-44 year old age groups. There were no significant differences by education and household income.

Drinking and driving was defined as "having driven after having too much to drink, one or more times in the past month."

The rate of drinking and driving was 3.7% in 1987. Men had almost three times the rate of women. Among islands, Maui, Kauai, and Hawaii had the highest rates. As age increased, the rates of drinking and driving decreased. Other groups at risk included Hawaiians/Part Hawaiians, and Caucasians; persons employed for wages, and those out of work for less than one year, and for more than one year; and those never married, those separated, and divorced. There were no significant differences by household income or by education.

Note:

In the 1986 edition of the Statistical Report, prevalence data for Molokai/Lanai and Kauai were reversed. All references made to Kauai should be attributed to Molokai/Lanai and vice versa.

Table 1

NUMBER AND PERCENT OF ADULT HAWAII POPULATION AT RISK FOR MORBIDITY AND MORTALITY FROM VARIOUS BEHAVIORAL RISK FACTORS FOR 1987

Risk Factors	Number (Estimated)	Percent (Estimated)
Seatbelt Nonuse	49,334	7.3
Uncontrolled Hypertension[1]	9,085	1.4
Current Hypertension	105,191	15.7
Sedentary lifestyle	347,151	51.7
Obesity	121,800	18.1
Cigarette Smoking	149,840	22.3
Smokeless tobacco[2]	3,333	0.5
Acute Drinking	152,128	22.6
Heavier Drinking	59,647	8.9
Drinking & Driving	22,025	3.7

[1]Respondents who report they have ever been told they are hypertensive and their blood pressure is still high.

[2]Respondents who report current smokeless tobacco use (ever used or tried it and use it now).

Table 2

PERCENT OF ADULT HAWAII POPULATION AT RISK FOR MORBIDITY AND MORTALITY FROM VARIOUS BEHAVIORAL RISK FACTORS BY ISLAND - STATE OF HAWAII, 1987

Island	Seatbelt Nonuse	Current Hypertension	Sedentary Lifestyle	Obesity	Smoking	Acute Drinking	Heavier Drinking	Drinking & Driving
Hawaii	5.6	14.6	54.1	19.2	18.8	31.3	15.0	6.1
Molokai/Lanai	20.3	20.7	41.7	33.8	26.6	23.1	11.5	5.0
Maui	16.7	14.0	55.1	14.0	34.4	26.7	14.2	7.1
Kauai	6.8	18.0	53.7	21.0	16.2	18.2	9.6	6.4
Oahu	5.9	15.7	51.6	17.5	21.4	21.2	7.4	3.0
Neighbor Islands	12.2	15.7	52.0	20.3	25.5	27.7	13.9	6.2
State	7.3	15.7	51.7	18.1	22.3	22.6	8.9	3.7

Table 3

PERCENT OF ADULT HAWAII POPULATION AT RISK FOR MORBIDITY AND MORTALITY FROM VARIOUS BEHAVIORAL RISK FACTORS BY SELECTED DEMOGRAPHIC CHARACTERISTICS - STATE OF HAWAII, 1987

Demographic Characteristic	Seatbelt Nonuse	Current Hypertension	Sedentary Lifestyle	Obesity	Smoking	Acute Drinking	Heavier Drinking	Drinking & Driving
Sex								
Female	5.6	16.1	57.9	15.0	21.1	10.2	2.7	1.9
Male	9.1	15.2	45.3	21.3	23.6	35.3	15.2	5.5
Age								
18 - 24	7.8	4.0	44.2	11.2	20.0	34.6	8.3	6.3
25 - 34	7.2	4.1	45.1	16.6	24.8	27.8	9.2	5.8
35 - 44	8.3	12.3	58.2	25.6	25.7	25.3	10.1	4.2
45 - 54	7.0	22.9	61.5	22.5	25.9	19.5	8.7	1.6
55 - 64	5.9	31.9	54.5	20.0	20.0	11.9	11.2	0.7
65+	7.6	38.2	53.6	14.0	13.3	4.3	4.9	0.0
Race								
Caucasian	10.5	13.5	42.8	16.3	25.0	28.3	10.7	4.7
Filipino	6.5	16.3	69.5	11.7	23.2	17.0	5.7	3.4
Hawaiian/Part Hawaiian	11.9	16.4	45.3	41.9	27.8	30.4	15.5	7.5
Japanese	2.7	18.1	60.2	12.3	17.9	18.9	6.1	1.9
Others	5.8	14.2	42.4	14.9	18.5	16.3	6.8	1.8

Table 3 (Cont'd.)

PERCENT OF ADULT HAWAII POPULATION AT RISK FOR MORBIDITY AND MORTALITY
FROM VARIOUS BEHAVIORAL RISK FACTORS BY SELECTED DEMOGRAPHIC CHARACTERISTICS - STATE OF HAWAII, 1987

Demographic Characteristic	Seatbelt Nonuse	Current Hypertension	Sedentary Lifestyle	Obesity	Smoking	Acute Drinking	Heavier Drinking	Drinking & Driving
Education								
8th Grade or less	6.5	31.5	67.8	11.4	19.3	4.3	5.5	0.3
Some High School	9.9	25.6	64.4	27.9	29.8	29.5	16.7	2.7
High School Grad. or GED Certificate	10.0	16.5	49.2	25.7	26.7	27.2	10.1	4.4
Some Technical Sch.	4.7	9.4	44.7	1.7	26.5	17.1	3.3	1.4
Technical Sch. Grad.	23.1	18.7	36.5	19.8	12.4	26.7	11.8	1.1
Some College	4.6	12.0	51.8	15.2	19.7	22.0	6.8	5.9
College Graduate	5.6	12.1	50.5	10.7	17.0	19.2	8.6	2.5
Post Grad. or Professional degree	2.2	7.3	42.3	10.5	21.5	23.6	6.4	1.8
Employment Status								
Employed for Wages	6.9	12.4	54.8	19.5	23.6	26.7	9.8	4.0
Self Employed	7.4	12.5	53.9	17.9	25.6	26.4	12.0	2.5
Out of Work for More than 1 year	33.2	19.6	40.9	11.9	30.2	16.6	9.1	4.7
Out of Work for Less Than 1 year	14.9	10.5	22.3	16.8	26.6	14.0	11.2	4.8
Homemaker	9.0	19.0	50.3	16.3	20.1	7.6	3.3	1.0
Student	3.6	4.8	48.3	3.7	23.4	24.8	3.4	2.2
Retired	5.3	35.4	43.7	17.7	13.0	7.4	7.0	0.2
Refused	0.0	0.0	83.9	83.9	83.9	0.0	0.0	0.0

Table 3 (Cont'd.)

PERCENT OF ADULT HAWAII POPULATION AT RISK FOR MORBIDITY AND MORTALITY
FROM VARIOUS BEHAVIORAL RISK FACTORS BY SELECTED DEMOGRAPHIC CHARACTERISTICS - STATE OF HAWAII, 1987

Demographic Characteristic	Seatbelt Nonuse	Current Hypertension	Sedentary Lifestyle	Obesity	Smoking	Acute Drinking	Heavier Drinking	Drinking & Driving
Marital Status								
Married	6.4	17.9	54.6	20.1	20.7	19.5	8.6	1.9
Divorced	11.6	18.1	49.5	22.0	42.3	26.5	18.5	5.8
Widowed	9.7	39.6	61.3	18.4	9.9	6.7	1.4	1.0
Separated	3.4	0.7	44.7	14.3	52.3	28.5	5.9	8.4
Never Married	8.5	5.2	44.2	11.4	19.6	33.9	8.4	9.5
Member of an Unmarried couple	9.4	0.0	33.1	15.9	40.5	25.4	8.2	0.8
Refused	0.0	37.0	23.8	2.7	5.3	21.2	21.2	0.0
Household Income								
Less Than $10;000	11.4	20.9	58.9	21.4	26.0	20.6	8.8	2.5
10 to less than 15	9.4	15.2	52.6	16.8	25.2	24.9	11.3	4.9
15 to less than 20	7.1	15.1	46.4	20.7	26.6	24.5	9.5	3.3
20 to less than 25	6.1	15.5	53.8	19.5	23.3	24.9	9.2	3.3
25 to less than 35	6.6	12.9	53.8	17.3	20.9	25.6	11.5	3.8
35 to less than 50	7.1	16.5	46.6	18.6	17.3	23.2	6.6	4.2
Over $50,000	6.6	12.2	43.4	16.6	18.0	18.5	8.3	4.0
Don't Know/Not Sure	7.1	20.6	69.1	13.4	24.6	11.2	1.8	0.4
Refused	2.3	20.9	46.7	19.4	24.0	29.1	10.3	9.1

HAWAII STATE HEALTH PLANNING AND DEVELOPMENT AGENCY

HAWAII STATE HEALTH PLANNING AND DEVELOPMENT AGENCY

Annual Summary of Acute, Long Term Care and Specialty Hospital Utilization by County, 1982 - 1987

A. The Agency

The Hawai'i State Health Planning and Development Agency (SHPDA) is an agency of state government administratively attached to the State Department of Health. Authorized by the National Health Planning and Resources Development Act, the Agency was established under state law in July, 1976 with amendments to Chapter 323D, Hawai'i Revised Statutes. In 1986, the U.S. Congress chose not to extend the Federal Health Planning Law. Act 270, of the Session Laws of Hawai'i (SLH), 1987, amended Chapter 323D of the Hawai'i Revised Statutes and appropriations for operations are now wholly provided through State funds.

B. Purpose of the Law

Hawai'i's health planning and resources development program was established to promote accessibility for all the people of the State to quality health care services at reasonable cost. The certificate of need program is one of the ways of achieving that purpose. Act 270, SLH 1987, made major amendments to the law, most of them for the purpose of simplifying the certificate of need process.

Statewide planning is another major activity of the Agency in achieving the purpose of the law. The Agency, in conjunction with the Hawai'i Statewide Health Coordinating Council (HSHCC), produces and promotes the implementation of the State of Hawai'i Health Services and Facilities Plan (HSFP). In addition to establishing plan guidelines/standards, the HSFP also sets forth projections for acute and long term care bed needs for the State of Hawai'i.

C. Utilization Data

1. Admissions

The number of admissions is defined as the number of inpatient admissions. A given person could be admitted more than once during a year. The critical care admissions are included in the categories shown. Data on the use rate of critical care beds are available at SHPDA.

The number of admissions multiplied by the average length of stay produces the total number of patient days.

2. Average Daily Census (ADC)

The average daily census provides the mean number of beds occupied during the year. The average daily census multiplied by 365 gives the total number of patient days per year. The average daily census divided by the bed capacity and multiplied by 100 gives the occupancy rate.

3. Occupancy Rates

Occupancy rates can be computed by dividing the ADC by the number of licensed beds and multiplying by 100. This provides an idea of the proportion of bed capacity occupied on the average day. As with ADC, this will fluctuate from day to day and by type of bed and place.

If a hospital's occupany rate is too high, it may not have adequate capacity to accept new patients. Also, some extra beds are always needed in order to allow for maintenance, etc. Usually, high occupancy in long term care beds is more acceptable, i.e., above 95%, since there is less daily fluctuation in daily census. In acute care, particularly where patients are admitted on a non-scheduled basis, e.g., OB, CCU, etc., the optimal occupancy can be lower in order to permit unforeseen admissions. For other types of acute beds, an occupancy of about 80-85% is acceptable because admissions can be scheduled if bed capacity is fully utilized on a given day.

In some instances, occupancy may run over 100% because of an overflow situation. This might occur if there are, for example, too many of a given type of patient who must be temporarily assigned to another bed type. Where occupancy rates are very high, this is an indication of an inadequate supply of that type of bed on a given island; where they are low, it is an indication of either an adequate supply or surplus of that type of bed on that island.

4. Average Length of Stay (ALOS)

The average length of stay is the average number of days patients remain in the facility per hospital stay. For acute care, this is computed by dividing the total patient days by the number of admissions. For long term care, this is computed dividing the patient days by the number of discharges. This is done because long term care patients may remain in a facility for several years.

Length of stay can be thought of as an indicator of either efficiency or seriousness of patient's illness. Where facilities are able to discharge patients in a shorter time, they might be thought of as being more efficient. However, in some instance where patients remain out of a hospital until their condition is more serious or where outpatient care is encouraged for less serious conditions, patients admitted may be required to stay longer.

In addition, in the event that long term care patients are occupying acute beds because they cannot find long term accommodations, this may tend to increase the acute length of stay--confusing the interpretation. It would be best if, when computing length of stay, waitlisted long term care patients could be omitted from the acute inpatient care data. This has not been done in these data.

TABLE 1
SHPDA RECOGNIZED ACUTE CARE BED CAPACITY
STATE OF HAWAI'I, 1988

	Medical/ Surgical	Critical Care[a]	Obstetric	Pediatric	Neonatal ICU[c]	Psych	Total
METROPOLITAN							
Kaiser	124	20	30	20	2	-	196
Kapiolani	68	22[b]	60	64	18	-	232
Kuakini	225	25	-	-	-	-	250
Queen's	394	37	25	-	-	50	506
St.Francis	230	22	-	4	-	-	256
Straub	136	23	-	-	-	-	159
Subtotal	1177	149	115	38	20	50	1599
SUBURBAN							
Castle	79	8	14	-	-	55	156
Kahuku	6	2	3	-	-	-	11
Wahiawa	50	5	14	-	-	-	69
Subtotal	135	15	31	-	-	55	236
O'AHU TOTAL	1312	164	146	88	20	105	1835
MILITARY							
Tripler	352	-	60	17	-	72	501
HAWAI'I COUNTY							
Hilo	91	11	20	14	-	20	156
Honoka'a	19	2	4	2	-	-	27
Kohala	4	-	-	-	-	-	4
Kona	31	6	8	-	-	8	53
Subtotal	145	19	32	16	-	28	240
MAUI COUNTY							
Maui Island							
Hana	4	-	-	-	-	-	4
Kula	2	-	-	-	-	-	2
Maui	104	8	18	5	-	10	145
Lana'i Island							
Lana'i	3	1	1	-	-	1	6
Moloka'i Island							
Moloka'i	4	-	4	-	-	-	8
Subtotal	117	9	23	5	-	11	165
KAUA'I COUNTY							
Mahelona	-	-	-	-	-	9	9
Kaua'i Vet.	18	2	4	-	-	-	24
G.N. Wilcox	64	8	9	-	-	-	81
Subtotal	82	10	13	-	-	9	114
N. I. TOTAL	344	38	68	21	-	48	519
STATE TOTAL	2008	202	274	126	20	225	2855

a. Includes coronary and intensive care units
b. Includes 6 Ped ICU, 6 Ped Intermediate Care and 10 Perinatal intensive care (PICU)
c. Neonatal isolettes

SOURCE: SHPDA, May, 1988

TABLE 2
SHPDA RECOGNIZED LONG TERM CARE BED CAPACITY
STATE OF HAWAI'I, 1988

	Skilled Nursing	Intermediate	SNF/ICF	Acute/SNF Swing	Total
O'AHU					
Ann Pearl	-	86	-	-	86
Arcadia	60	-	-	-	60
Beverly Manor	-	-	108	-	108
Convalescent Center	-	-	183	-	183
Crawford's	-	68	-	-	68
Hale Ho Aloha	-	85	-	-	85
Hale Malamalama	-	31	-	-	31
Hale Nani	-	-	232	-	232
Hawai'i Select Care	-	92	-	-	92
Island Nursing	-	-	42	-	42
Kahanaola	-	-	42	-	42
Kahuku	11	-	-	4	15
Kuakini	50	150	-	-	200
Leahi	92	38	-	-	130
Leeward	-	50	-	-	50
Maluhia	-	-	158	-	158
Maunalani	-	-	101	-	101
Muuanu Hale	-	-	75	-	75
Oahu Care Facility	-	82	-	-	82
St. Francis	52	-	-	-	52
Wahiawa	-	-	93	-	93
Total O'ahu	265	682	1034	4	1985
HAWAI'I COUNTY					
Life Care Center	-	240	-	-	240
Hilo Hospital	36	84	-	-	120
Honoka'a	8	-	-	-	8
Ka'u	-	-	10	5	15
Kohala	-	-	18	4	22
Kona	-	-	22	-	22
Total Hawai'i County	44	324	50	9	427
MAUI COUNTY					
Hale Makua	-	124	120	-	244
Kula	-	-	95	-	95
Lana'i	-	-	8	-	8
Moloka'i	-	-	14	8	22
Total Maui County	-	124	237	8	369
KAUA'I COUNTY					
Hale Ohno	-	30	-	-	30
Kaua'i Care Center	-	17	-	-	17
Kaua'i Veterans	-	-	15	5	20
Mahelona	-	-	61	6	67
G. N. Wilcox	-	-	80	-	80
Total Kaua'i County	-	47	156	11	214
STATE TOTAL	309	1177	1477	32	2995

SOURCE: SHPDA, May, 1988

Table 3
SHPDA RECOGNIZED SPECIALTY CARE BED CAPACITY
STATE OF HAWAI'I, 1988

	Psych	TB	MR	SNF/ICF MR	Hansen's Disease	Rehab	Children's Ortho	M/S	Total
Hale Mohalu	-	-	-	-	21	-	-	-	21
Hawaii State	239	-	-	-	-	-	-	-	239
Kahi Mohala	88	-	-	-	-	-	-	-	88
Kalaupapa	-	-	-	-	14	-	-	-	14
Kula	-	-	8	-	-	-	-	-	8
Leahi	-	21	-	-	-	-	-	5	26
Rehab. Hospital	-	-	-	-	-	100	-	-	100
Shriner's	-	-	-	-	-	-	40	-	40
Waimano	-	-	225	60	-	-	-	-	285
GRAND TOTAL	327	21	233	60	35	100	40	5	821

*Includes 20 ped. psych. beds

SOURCE: SHPDA, May, 1988

TABLE 4
AVERAGE LENGTH OF STAY BY COUNTIES

	1982	1983	1984	1985	1986	1987
LONG TERM CARE						
O'ahu	387.8	409.2	452	412	419	444
Hawai'i	336.6	233.2	274	287	296	359
Kaua'i	335.8	263.5	194	195	101	201
Tri-Isle	330.8	406.5	264	412	372	403
Maui	338.4	426.4	263	427	418	417
Moloka'i	203.3	213.7	195	260	95	200
Lana'i	323.1	216.2	696	276	*	496
TOTAL ACUTE						
O'ahu	6.6	6.3	5.9	6.5	6.8	7.0
Hawai'i	4.1	4.2	4.3	4.3	4.5	4.9
Kaua'i	5.5	4.6	4.4	4.4	3.6	4.3
Tri-Isle	4.9	4.9	4.7	4.7	4.6	4.7
Maui	5.1	3.5	4.9	4.8	3.5	4.8
Moloka'i	2.7	3.7	2.9	3.1	3.5	3.3
Lana'i	2.9	4.2	4.3	2.9	*	2.8
MEDICAL-SURGICAL						
O'ahu	7.6	7.1	6.7	7.2	7.6	7.9
Hawai'i	4.6	5.2	5.5	5.3	5.5	6.3
Kaua'i	7.8	6.0	5.3	5.2	4.0	5.2
Tri-Isle	6.0	5.9	5.7	5.6	5.7	5.7
Maui	6.1	6.0	5.9	5.8	5.8	5.9
Moloka'i	3.5	4.6	3.2	3.3	4.0	4.1
Lana'i	3.0	5.3	4.9	3.1	*	3.0
CRITICAL CARE (ICU/CCU)						
O'ahu	7.2	7.7	5.0	5.8	5.9	6.2
Hawai'i	2.9	2.7	2.6	2.5	2.5	2.4
Kaua'i	2.1	1.5	1.8	2.0	1.8	1.9
Maui	3.2	2.6	2.8	3.1	3.3	2.8
OBSTETRIC						
O'ahu	3.2	3.1	3.2	3.2	3.3	3.4
Hawai'i	2.3	2.2	2.2	2.4	2.6	2.5
Kaua'i	2.6	2.0	2.4	2.5	2.4	2.5
Tri-Isle	2.0	2.0	2.0	1.9	1.7	1.8
Maui	2.1	2.1	2.0	1.9	1.7	1.9
Moloka'i	1.5	1.5	1.4	1.4	1.4	1.7
Lana'i	1.3	1.4	2.1	2.1	*	1.5
PEDIATRIC						
O'ahu	3.9	3.8	3.9	3.9	4.0	4.7
Hawai'i	2.8	2.8	2.7	2.7	2.8	2.8
Kaua'i	2.6	2.2	...	...	...	...
Maui	3.9	3.7	3.5	3.0	2.7	2.3
PSYCHIATRIC						
O'ahu	11.4	10.0	11.9	12.3	13.8	13.6
Hawai'i	9.1	7.8	6.3	6.0	7.1	7.8
Kaua'i	6.4	6.9	6.4	5.6	7.0	5.9
Maui	6.7	6.3	7.3	6.8	6.8	6.0

SHPDA: May 1988

TABLE 5
OCCUPANCY RATES BY COUNTIES

	1982	1983	1984	1985	1986	1987
LONG TERM CARE						
O'ahu	96.0	95.4	97.3	97.2	90.5	93.7
Hawai'i	82.9	94.6	95.2	95.3	93.8	96.7
Kaua'i	99.8	94.5	96.3	91.1	83.0	92.1
Tri-Isle	94.9	96.8	92.6	97.0	97.3	95.6
Maui	95.4	97.5	95.0	97.0	97.6	95.7
Moloka'i	92.5	97.6	55.8	96.8	89.3	90.1
Lana'i	77.5	66.6	95.1	84.9	*	100.0
TOTAL ACUTE						
O'ahu	79.1	76.5	70.8	67.7	67.3	74.4
Hawai'i	49.5	48.2	48.3	48.3	53.8	60.7
Kaua'i	57.4	49.5	43.8	50.0	44.4	51.5
Tri-Isle	59.1	62.3	58.2	57.8	61.5	64.6
Maui	65.5	67.3	60.4	62.6	65.4	70.1
Moloka'i	19.3	34.0	41.4	17.3	25.0	15.8
Lana'i	5.0	13.3	12.7	12.9	*	12.9
MEDICAL-SURGICAL						
O'ahu	83.0	77.2	69.8	68.2	68.8	72.3
Hawai'i	63.9	60.8	62.4	62.3	65.1	74.6
Kaua'i	64.1	54.2	45.8	54.5	47.6	56.1
Tri-Isle	76.8	81.8	65.2	65.0	67.7	72.4
Maui	82.5	86.0	66.1	70.5	72.3	77.7
Moloka'i	37.5	55.0	67.4	21.5	25.0	17.7
Lana'i	10.0	23.3	22.5	22.2	*	24.1
CRITICAL CARE (ICU/CCU)						
O'ahu	80.0	73.5	63.6	61.1	63.6	68.8
Hawai'i	41.7	39.0	44.9	41.3	50.0	52.9
Kaua'i	36.0	28.0	29.5	33.4	30.0	35.8
Maui	62.3	63.8	51.9	52.9	27.8	67.1
OBSTETRICS						
O'ahu	76.8	81.4	80.7	75.2	68.4	83.0
Hawai'i	35.9	33.6	33.7	35.3	36.8	43.5
Kaua'i	46.0	46.3	38.5	37.9	37.5	37.7
Tri-Isle	27.9	30.0	32.3	27.6	26.1	26.1
Maui	32.5	34.1	39.0	33.6	33.3	35.2
Moloka'i	10.0	10.0	8.9	4.7	...	10.2
Lana'i	1.0	5.0	6.3	9.9	*	4.9
PEDIATRICS						
O'ahu	47.8	60.0	54.8	52.4	47.7	73.7
Hawai'i	16.7	19.0	14.2	14.4	31.3	27.2
Kaua'i	43.3	35.0	...	...	...	...
Tri-Isle	35.5	31.4	76.2	70.7	80.0	68.5
Maui	40.5	35.0	76.2	70.7	80.0	68.5
Moloka'i	5.0	10.0	...	...	...	...
PSYCHIATRIC						
O'ahu	90.5	78.3	78.9	62.1	75.1	86.4
Hawai'i	39.6	49.0	35.5	35.0	32.1	47.4
Kaua'i	36.7	45.6	48.0	49.2	44.4	48.1
Maui	22.4	22.1	41.3	39.1	50.0	49.4

SHPDA: May 1988 0039E

TABLE 6
AVERAGE DAILY CENSUS BY COUNTIES

	1982	1983	1984	1985	1986	1987
LONG TERM CARE						
O'ahu	1669.9	1656.8	1696	1720	1753	1863
Hawai'i	387.4	387.8	384	385	379	394
Kaua'i	125.8	128.5	131	136	127	178
Tri-Isle	339.9	346.4	341	349	343	344
Maui	322.6	329.4	321	328	330	323
Moloka'i	11.1	11.7	12	14	13	13
Lana'i	6.2	5.3	8	7	*	8
TOTAL ACUTE						
O'ahu	1417.5	1357.1	1280	1284	1295	1717
Hawai'i	129.6	122.5	124	122	1350	146
Kaua'i	82.1	70.8	56	59	52	60
Tri-Isle	98.7	104.1	98	101	104	111
Maui	95.6	98.2	93	97	100	108
Moloka'i	2.9	5.1	4	3	4	2
Lana'i	.3	.8	1	1	*	1
MEDICAL-SURGICAL						
O'ahu	1070.9	1011.2	913	889	910	1206
Hawai'i	90.7	86.3	90	88	97	108
Kaua'i	65.3	54.4	43	45	39	47
Tri-Isle	78.3	83.4	78	83	84	92
Maui	75.1	78.3	74	79	81	89
Moloka'i	3.0	4.4	3	3	3	2
Lana'i	.1	.7	1	1	*	1
CRITICAL CARE (ICU/CCU)						
O'ahu	109.6	118.5	95	94	98	110
Hawai'i	8.7	8.2	9	9	10	10
Kaua'i	3.6	2.8	3	3	3	3
Maui	5.0	5.1	4	5	5	5
OBSTETRICS						
O'ahu	115.2	120.5	118	111	100	171
Hawai'i	12.9	12.1	12	13	14	15
Kaua'i	7.4	7.4	6	6	6	6
Maui	6.8	7.5	7	6	6	6
PEDIATRICS						
O'ahu	67.5	52.3	47	45	42	77
Hawai'i	5.7	6.5	5	5	5	4
Kaua'i	2.6	2.1	...	...	...	...
Maui	4.9	4.2	4	4	4	3
PSYCHIATRIC						
O'ahu	54.3	54.8	83	120	145	153
Hawai'i	11.5	10.3	7	7	9	9
Kaua'i	3.3	6.9	4	4	4	4
Maui	3.1	6.3	4	4	5	5

SHPDA: May 1988 0040E

TABLE 7
NUMBER OF ADMISSIONS BY COUNTY

	1982	1983	1984	1985	1986	1987
LONG TERM CARE						
O'ahu	1572	1478	1373	1522	1526	1528
Hawai'i	420	607	513	490	468	401
Kaua'i	131	178	247	254	233	312
Tri-Isle	375	311	473	309	337	312
Maui	348	282	446	281	289	283
Moloka'i	20	20	23	19	48	23
Lana'i	7	9	4	9	*	6
TOTAL ACUTE						
O'ahu	78155	78459	73955	61416	67499	91106
Hawai'i	11526	10455	10328	10313	11006	10885
Kaua'i	5400	5597	4697	4909	5204	5158
Tri-Isle	7293	7820	7550	7835	7995	6677
Maui	6866	7253	7007	7406	7626	6260
Moloka'i	395	500	478	331	369	276
Lana'i	37	67	65	98	*	141
MEDICAL-SURGICAL						
O'ahu	51335	51853	47292	45222	43654	55665
Hawai'i	7160	6017	6023	6038	6469	6234
Kaua'i	3187	3310	2942	3117	3554	3342
Tri-Isle	4765	5148	5009	5386	5433	4396
Maui	4478	4752	4572	5024	5130	4163
Moloka'i	253	351	387	283	303	189
Lana'i	34	45	50	79	*	44
CRITICAL CARE (CCU/ICU)						
O'ahu	5522	5585	5686	5878	6085	6544
Hawai'i	1085	1093	1304	1272	1443	1504
Kaua'i	631	698	588	611	563	656
Maui	575	714	545	563	540	529
OBSTETRICS						
O'ahu	13203	14018	13653	12734	11216	18334
Hawai'i	2079	2025	2061	1924	2022	2129
Kaua'i	1033	1028	921	891	912	890
Tri-Isle	1290	1419	1390	1238	1236	1024
Maui	1182	1306	1288	1173	1169	931
Moloka'i	105	100	91	48	66	87
Lana'i	3	13	11	17	*	6
PEDIATRICS						
O'ahu	6357	5023	4416	4209	3381	5951
Hawai'i	739	837	661	633	617	576
Kaua'i	361	341	...	...	...	...
Maui	452	414	399	439	486	412
PSYCHIATRIC						
O'ahu	1738	2000	2556	3565	3851	4088
Hawai'i	463	483	434	446	455	442
Kaua'i	188	220	246	290	185	270
Maui	174	176	207	209	247	235

Note: 1987 data includes Tripler
SHPDA: May 1988 0041E

FAMILY HEALTH SERVICES DIVISION

FAMILY HEALTH SERVICES DIVISION

SUMMARY

The Family Health Services Division administers and coordinates programs concerned with the provision and promotion of health services to families, including women of childbearing age, mothers, infants, children and youth. These programs are carried out through the Maternal and Child Health Branch, which includes Family Planning, the Crippled Children Services Branch; and the School Health Services Branch. The Division emphasizes services which are child and family-centered and community-based.

The MATERNAL AND CHILD HEALTH BRANCH accomplishes its functions through three organizational sections: (1) family planning, (2) maternal and infant, and (3) children and youth. The goal of the Maternal and Child Health (MCH) Branch is to assure that all women of childbearing age, infants and children in the State of Hawaii achieve and maintain optimal health. The Branch provides leadership and advocacy to strengthen the health delivery systems of services to women and children, integrating both the public and private sectors. The methods used include direct service provision, cooperative interagency agreements, purchase of service contracts, training others to provide the service, developing community resources, and coordinating existing community resources.

Family Planning Services Section: The Office of Family Planning provides overall planning, data collection and evaluation; monitoring, training, and technical assistance; and coordination and development for the public-assisted family planning programs in Hawaii. The Office of Family Planning manages the Hawaii Family Planning Data System and conducts special projects, such as the Family Planning Information Line.

Through direct (Rural Oahu Family Planning Project) and contractual services (neighbor islands and urban Honolulu), the Office of Family Planning offers family planning health education and clinical services at many locations throughout the State.

Maternal and Infant Services Section: The MCH Branch offers five programs which address the concerns of the maternal-fetal/infant population.

-The Regional Perinatal Program's primary goal is the development of a regionalized perinatal system to assure that every pregnant woman and newborn receive services appropriate to their assessed needs. The estimated target population includes 25,000 pregnant women of which 20 percent is estimated to be high-risk pregnancies, and 2,800 high-risk infants. Contracted through and located at the Kapiolani Medical Center for Women and Children, the Regional Perinatal Program seeks to prevent high-risk pregnancies from occurring and to prevent the harmful effects of high-risk pregnancies on the mothers and infants through the development of quality assurance documents, risk identification tools and follow-up protocols, professional perinatal education, public education, and health advocacy activities.

-The Neonatal Intensive Care Unit (NICU) Follow-Up Program is an extension of a number of collaborative projects between the Department of Health, Kapiolani Medical Center for Women and Children, and the private pediatric community that has served to interface the fields of medicine, mental retardation, and developmental disabilities. The purpose of the NICU Follow-Up Program is to develop a system for the identification and follow up of all very high-risk infants born in the State of Hawaii with follow up consisting of medical, developmental, and psychosocial screening and referral through age three. During FY 1987, 219 infants were assessed. At 3 months of age, 29 percent (23/80) of the infants were found to have suspected delays. At age two and three years, this had changed to 10 percent (8/79) and 15 percent (4/26) exhibiting documented delays respectively. Additionally, 10.5 percent (23/219) of children had psychosocial problems.

-The Maternity and Infant Care Project's services include multi-disciplinary prenatal care; community prenatal education for the community, particularly pregnant adolescents; family planning services; in-hospital family planning education; high-risk infant care for a one-year period; and referral to child health clinics. Project activities are available in the Waimanalo, Hilo, Kona and Ka'u communities.

-The Teen Intervention Program contracted through Kapiolani Medical Center for Women and Children provides counseling, case management and health education to pregnant adolescents Oahu-wide. A primary focus is the prevention of a second unintended pregnancy. Brief and/or intensive counseling services were provided to 983 adolescents in 1986. In addition, health education is provided by the program's teen advocates in high school settings throughout the state regarding the impact of and resolution of adolescent pregnancies; 8,710 public and private school children were addressed in 1986.

-MCH Branch provides consultation services to Kamehameha Schools/Bishop Estate's (KS/BE) federally funded Native Hawaiian Child Development Centers. The goal of KS/BE's Program is to establish an integrated system of education, health and social services programs for families of Native Hawaiian children in the prenatal to age five range in four communities: Kalihi-Palama, Wai'anae, Ko'olauloa, and Kona. The MCH consultant assists in the integration of health concepts and practices within the three program components: home visitor, travelling preschool, and center-based preschool.

Children and Youth Services Section: The five programs provided by the Branch address the needs of children and youth:

-Child Health Conferences: Public Health nurses conduct these clinics, available to all children six years and under to provide health assessment, immunization, referral to other agencies when needed, and counseling in childrearing, nutrition, and preventive mental health.

-Early and Periodic, Screening, Diagnosis and Treatment (EPSDT): Historically, this program introduced the EPSDT concept into the State with outreach activities, screening clinics and follow-up monitoring of referrals for Medicaid individuals 0-21 years of age. With increased support and participation of private providers, provision of clinics is no longer a community need.

The EPSDT thrust is now to promote individual and family education and advocacy through outreach and networking to develop a quality assurance program, support a case management system that will assure health services to individuals and assist in processes that would provide a statewide information system as well as promote an integrated service system to children. The goal is that the EPSDT concept should be a standard of health care for all children.

-The Preschool Developmental Screening Program continues training and consultative services to interested preschool staff, public health nurses and other community providers so they may perform their own screening and refer to appropriate community resources for necessary follow up, including diagnostic evaluations for learning and/or developmental problems. During fiscal year 1987, 263 persons, or 22 percent of the target population, were trained statewide. Training workshops to increase knowledge and awareness in the area of early childhood development are also conducted statewide and, during fiscal year 1987, 40 percent of those attending all training workshops were on neighbor islands. Annual reports submitted by those trained indicate that 2,740 children were screened and 47 (2 percent) were referred outright to the Department of Education for comprehensive evaluation. An additional 248 children required a psychological, speech, language or occupational therapy assessment or evaluations. Recommendations from these initial evaluations indicated that 40 children (16 percent) needed further testing by the Department of Education.

-Waimanalo Children and Youth Project: Health care is provided to infants, children and adolescents in Waimanalo. Preventive and diagnostic services are available to any child under 16 years. Comprehensive services are offered to low-income children. Services include nutrition, social work, public health nursing, speech and hearing, pediatric clinic, and referral to specialists.

-The Maternal and Child Health Adolescent Network (MCHAN) is a three-year project to improve the health status of 10-19 year olds in the State of Hawaii by systematizing adolescent data, services and service delivery. The project intent is to increase the accessibility, availability, and quality of services through inter- and intra-agency collaboration and networking of existing resources at the state and community levels; and to improve the availability and accessibility of adolescent specific data to assess the true needs of adolescents and to appropriately develop programs and allocate resources.

The CHILDREN WITH SPECIAL HEALTH NEEDS BRANCH (formerly Crippled Children Services Branch) offers diagnostic evaluations by specialists to children under the age of 21 years who are suspected of having one of the eligible medical conditions (Table 7). An individual treatment plan is formulated for each client by an interdisciplinary team of health professionals. Treatment services for those children who are financially eligible and have an eligible medical condition include medical and surgical treatment, hospitalization, occupational and physical therapy, speech therapy, orthodontic and dental treatment, social work and nursing services.

The medical eligible conditions include birth defects (such as cleft lip and palate, congenital heart disease, orthopedic conditions and spina bifida), also severe asthma, rheumatic fever and rheumatic heart disease, surgically correctable eye conditions, hearing impairment and certain neurologic disorders. The Branch also provides genetic counseling and diagnostic services, comprehensive myelodysplasia

services, and comprehensive services for children with rheumatic disorders through Kapiolani Medical Center for Women and Children.

The Branch also administers Hawaii's Newborn Screening Program which has statewide responsibilities for assuring that all infants are tested for Phenylketonuria (PKU) and Congenital Hypothyroidism. Major responsibilities include the tracking and follow-up of infants to assure satisfactory testing to detect all infants with the specified diseases and to assure timely treatment. Preliminary analysis of the registry established in 1986 indicated that the number of PKU cases in Hawaii is about the same magnitude as reported nationally, although in 1987 there was an unexpected increase in the number of confirmed cases.

Maternal Serum Alpha Feto Protein Screening was initiated on a voluntary basis in 1987. About 3,000 women were tested in FY 86-87. During the 1988 legislative session a prenatal screening bill was passed. This bill authorizes the Department of Health to adopt rules that will assure that all pregnant women are offered appropriate information about prenatal diagnosis. It also assures that those women who so choose will be provided with quality testing, diagnostic services, and follow-up concerning neural tube defects and other disorders amenable to prenatal diagnosis.

The Zero-to-Three Hawaii Project which began in the fall of 1987 is placed in this Branch. The Project is responsible for developing a statewide comprehensive program of early intervention services for infants and toddlers with special needs and their families. By the end of its first year activities, the Project has designated its target group and has approved for funding projects for direct services in priority need areas to be provided between May 1, 1988, and September 30, 1988. The Project has begun to develop its data bases and statistics will become available next year.

The SCHOOL HEALTH SERVICES BRANCH provides a health service delivery system for all public school students with particular emphasis on preventive health care services. The Branch services about 200,000 students in all the islands except Niihau. School health services are available to student and staff alike. The goal is to ensure that students are in the best state of health in their learning environment.

The services are provided by two sections. The School Health Services Section focuses on health promotion and preventive health care, early identification of health conditions, first aid services for illness and injury and referral of problems to appropriate resources in the community. With the advent of P.L. 94-142, there has been a greater demand for nursing services to children with specialized health care needs.

The School Health Support Services Section includes the Vision and Hearing Screening Unit and the Occupational Therapy and Physical Therapy Units. The Vision and Hearing Screening Unit provides services for the early identification of specific sensory deficits in order to prevent interference with learning and adjustment. They provide uniform and regular screening, rescreening of students, issue medical referrals and conduct follow up with parents. Selected services are provided to the preschools and private schools.

The Occupational and Physical Therapy Units provide evaluation, consultation and therapy services to the handicapped school population in accordance with P.L. 94-142. Therapy services are directed toward the development and maintenance of the handicapped child's potential for independence in all educationally related activities. The increase in the number of children requiring support services in schools and outside of medical settings has necessitated an expansion and a change in the kinds of services therapist offer.

TABLE 1

HIGH RISK CLIENTS SERVED IN FISCAL YEAR 1987
STATE OF HAWAII
OFFICE OF FAMILY PLANNING
FAMILY PLANNING CLINICS

	Risk Category (State Total of Clients Served = 15,859)					
	High	Number	(%)	Low	Number	(%)
Age	<18	2,855	18	>/18	13,004	82
Marital Status	Single	12,687	80	Married	3,172	20
# of Children	>/3	793	5	< 3	15,066	95
Welfare Recipient	Yes	1,586	10	No	14,273	90
Income at/below poverty level	Yes	10,626	67	No	5,233	33
Full-time Student	Yes	6,661	42	No	9,198	58
Ethnicity	**	6,344	40	Other	9,515	60

** = Hawaiian/Part-Hawaiian, Filipino, Samoan, Korean, or other Pacific Islander.

TABLE 2

NUMBER OF CLIENTS AND VISITS, FY 1987
STATE OF HAWAII
OFFICE OF FAMILY PLANNING
FAMILY PLANNING CLINICS

Contractual Service Providers and Service Area	Number of Clients		Number of Visits
	New*	Total	
Bay Clinic - East Hawaii	762	1,610	3,208
Kalihi-Palama Health Clinic - Urban Oahu	741	1,144	1,991
Hawaii Planned Parenthood - Kauai, Maui, Kona	1,404	3,078	6,474
Hilo Medical Group Ka'u Project - Ka'u District, Hawaii	22	52	59
Kapiolani Medical Center for Women and Children - Urban Oahu	649	1,668	3,306
Kokua Kalihi Valley - Urban Oahu	407	748	1,780
Molokai General Hospital - Molokai	122	353	785
Queen's Medical Center - Urban Oahu	716	1,177	1,995
University of Hawaii - Urban Oahu	598	1,640	3,228
Waikiki Health Center - Urban Oahu	587	813	1,078
Department of Health Service Providers and Service Area			
Rural Oahu Family Planning Project - Rural Oahu	1,537	2,867	5,111
Hilo Maternity & Infant Care Project - East Hawaii	79	255	933
Waimanalo Maternity & Infant Care Project - Waimanalo, Oahu	78	379	981
Lanai Family Health Center - Lanai	25	75	183
STATE TOTALS	7,727	15,859	31,112

*Clients new to agency

TABLE 3

DEMOGRAPHIC CHARACTERISTICS OF CLIENTS SERVED
MATERNAL AND INFANT SERVICES SECTION
FISCAL YEAR 1987
STATE OF HAWAII

	WAIMANALO (n = 176)	HILO (n = 189)	TOTAL (n = 365)
Age			
Under 18	29%	60%	45%
19-34	68%	35%	51%
35+	3%	5%	4%
Insurance Coverage			
Title XIX	31%	69%	47%
Title V	43%	12%	30%
Third Party	26%	19%	23%
Ethnic Distribution			
Hawaiian/ Part Hawaiian	79%	51%	65.0%
Caucasian	6%	26%	16.0%
Filipino	6%	13%	9.5%
Japanese	2%	4%	3.0%
Mixed	4%	-	2.0%
Puerto Rican	-	2%	1.0%
Other Pacific Islanders	1%	2%	1.5%
Others	2%	2%	2.0%

TABLE 4

TIMING OF ENTRY INTO PRENATAL CARE FOR
HILO AND WAIMANALO MATERNITY AND INFANT CARE PROJECTS
AND THE STATE, FY 1987

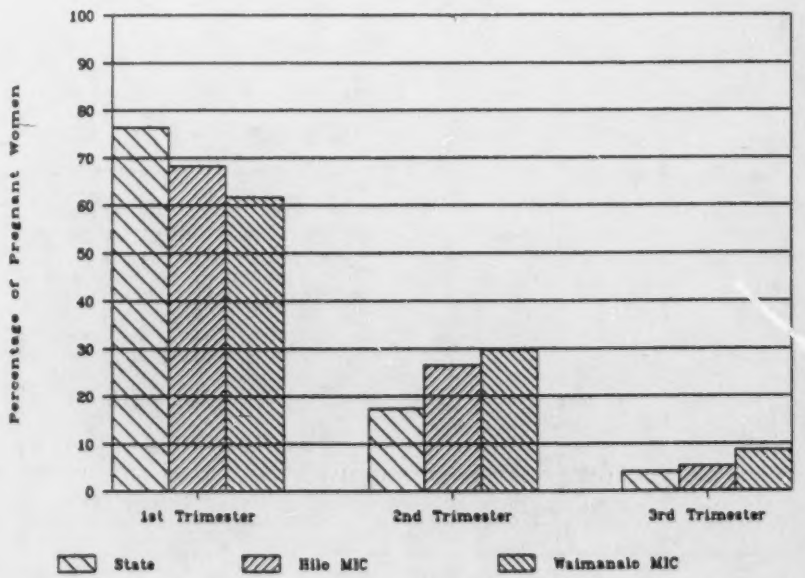


TABLE 5

WAIMANALO CHILDREN AND YOUTH PROJECT ACTIVITIES
CALENDAR YEAR 1987
STATE OF HAWAII
MATERNAL AND CHILD HEALTH BRANCH

Registrants	Number of Children
Total	1,993
New	325
Discharged	456
Registered as of December 1987	1,563
Target Population*	3,000

CLIENT DEMOGRAPHICS	Number of Children	% of Children
Sex		
Male	1,034	51.9
Female	959	48.1
Age		
Under 1	109	5.5
1-4	504	25.3
5-9	571	28.7
10-14	571	28.7
15-16	238	11.9
Ethnicity		
Hawaiian, Part Hawaiian	1,577	79.1
Filipino	152	7.6
Caucasian	79	4.0
Samoan	34	1.7
Black	5	0.3
Laotian	3	0.2
Chinese	2	0.1
Japanese	1	0.1
Other	140	7.0

CLIENT SERVICES	Number of Encounters
Medical Services	10,025
Health Assessments	1,215
Developmental Assessments	210
Episodic Care, Rechecks	5,824
Nursing Services	2,776
Medical Social Worker Services	918
Nutritional Services	586
Public Health Nursing Services	1,119
Home and Hospital Visits	365
Speech and Hearing Services	
Hearing	860
Speech/Language	141
Therapy	181

*Based on adjusted figure from 1980 census.

TABLE 6

INFANTS AND CHILDREN PROVIDED PUBLIC HEALTH NURSING SERVICES IN CHILD HEALTH CONFERENCES
STATE OF HAWAII
FISCAL YEAR 1987

County	Infants Under 1 Year	Children 1 Year and Over	Total
Honolulu County	1,579	5,322	6,901
Hawaii County	448	1,282	1,730
Kauai County	161	581	742
Maui County	553	1,250	1,803
STATE TOTAL	2,741	8,435	11,176

TABLE 7
DISTRIBUTION OF MEDICAL CONDITIONS AMONG CHILDREN RECEIVING SERVICES FROM CHILDREN WITH SPECIAL HEALTH NEEDS BRANCH BY DIAGNOSTIC GROUP AND ETHNICITY, FY 1987
STATE OF HAWAII, DEPARTMENT OF HEALTH
(DUPLICATED COUNT)

	TYPE OF CASE			ETHNICITY												
DIAGNOSIC GROUP	TOTAL	NEW	OLD	HAWN	FIL-PINO	CAUC SIAN	JAPA NESE	SA-MOAN	COSMO	PORTU GUESE	CHI-NESE	PUERTO RICAN	BLACK	KO-REAN	OTHER	UNKNOWN
TOTAL NO. DIAGNOSES	1557	416	1141	635	279	160	97	113	39	44	38	23	14	14	65	43
CARDIAC DISORDERS																
Congenital Malformation of Heart	314	77	237	120	67	38	17	16	7	8	6	5	4	5	14	7
Congenital Malformation of the Great Vessels	49	12	37	15	14	3	3	2	1	4	2	0	0	1	2	2
Diseases of the Circulatory System	38	10	28	14	6	3	1	3	2	2	4	0	0	1	1	1
Other Heart Disease	2	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0
Rheumatic Fever	85	18	67	36	7	3	3	25	1	4	0	2	0	0	2	2
Rheumatic Heart Disease	87	10	77	40	9	2	2	21	1	2	1	1	2	0	5	1
CRANIOFACIAL DISORDERS																
Cleft Lip	10	1	9	4	4	2	0	0	0	0	0	0	0	0	0	0
Cleft Lip and Palate	85	5	80	31	19	4	14	4	2	1	7	1	0	1	1	0
Cleft Palate	29	3	26	9	7	5	2	0	2	0	0	0	0	0	4	0
Severe Dental Malocclusion	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
COMMUNICATION DISORDERS																
Conductive Hearing Loss	17	0	17	9	2	1	1	1	0	0	0	1	0	0	1	1
Non-Organic Speech Disorder	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Other Hearing Impairment	5	0	5	2	2	0	0	0	0	0	0	1	0	0	0	0
Sensorineural/Hearing Loss	207	70	137	93	39	23	9	15	3	3	5	2	0	3	7	5
EAR DISORDERS																
Chronic Otitis Media	42	9	33	27	5	3	1	3	0	0	0	1	0	0	0	2
Other Ear Disease	5	3	2	2	3	0	0	0	0	0	0	0	0	0	0	0

TABLE 7 (Continued)
DISTRIBUTION OF MEDICAL CONDITIONS AMONG CHILDREN RECEIVING SERVICES FROM CHILDREN WITH SPECIAL HEALTH NEEDS BRANCH BY DIAGNOSTIC GROUP AND ETHNICITY, FY 1987
STATE OF HAWAII, DEPARTMENT OF HEALTH
(DUPLICATED COUNT)

	TYPE OF CASE			ETHNICITY												
DIAGNOSIC GROUP	TOTAL	NEW	OLD	HAWN	FIL-PINO	CAUC SIAN	JAPA NESE	SA-MOAN	COSMO	PORTU GUESE	CHI-NESE	PUERTO RICAN	BLACK	KO-REAN	OTHER	UNKNOWN
NEUROLOGIC/NEUROMUSCULAR DISORDERS																
Cerebral Palsy	37	6	31	18	7	3	1	1	1	1	2	0	1	0	1	1
Congenital Hydrocephalus	11	3	8	3	2	2	0	0	1	0	1	1	1	0	0	0
Other Neurologic/ Neuromuscular Disorders	21	6	15	8	2	2	5	0	2	1	0	0	0	0	0	1
Seizure Disorders	130	38	92	38	19	10	9	7	7	6	2	4	0	2	6	0
NEURAL TUBE DEFECTS	67	8	59	33	5	10	10	0	2	1	1	1	2	0	2	0
ORTHOPEDIC DISORDERS																
Club Foot	20	2	18	15	2	2	1	0	0	0	0	0	0	0	0	0
Congenital Dislocation of Hip	3	2	1	0	1	0	1	0	0	1	0	0	0	0	0	0
Congenital Limb Malformation	7	1	6	3	3	0	1	0	0	0	0	0	0	0	0	0
Other Orthopedic	37	5	32	13	8	5	3	1	0	3	1	0	0	0	2	1
Scoliosis	31	6	25	13	7	5	1	0	1	2	0	1	0	0	0	1
PULMONARY DISORDERS																
Asthma	57	16	41	22	7	8	4	2	2	1	0	1	0	0	7	3
Cyctic Fibrosis	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
RHEUMATOID ARTHRITIS	7	0	7	1	2	1	0	1	0	2	0	0	0	0	0	0
VISUAL DISORDERS																
Cataract	6	1	5	0	2	3	0	0	0	0	0	0	0	0	1	0
Other Visual	7	1	6	3	0	1	1	0	0	1	0	0	0	0	0	1
Strabismus	18	7	11	9	1	2	1	0	0	1	0	1	0	1	2	0
MISCELLANEOUS																
Deferred Diagnosis	7	5	2	1	2	2	0	0	0	0	0	0	0	0	0	2
Functional Mursur	103	84	19	26	20	14	6	11	4	0	6	0	4	0	7	5
No Abnormality	3	3	0	0	2	1	0	0	0	0	0	0	0	0	0	0
Other Miscellaneous	7	4	3	3	3	1	0	0	0	0	0	0	0	0	0	0

TABLE 8
NO. CASES ACTIVE WITH CHILDREN WITH SPECIAL HEALTH NEEDS BRANCH
FY 1986-87

New	438
Carried Over	890
Reopened	116
Total Cases Active	1444

TABLE 9
SERVICES PROVIDED BY CSHN BRANCH BY TYPE OF SERVICE
(DUPLICATED COUNT)
FY 1986-87

Type of Service	No. Cases	Service Units
Clinical Services	1144	1876
Speech/Hearing	60	170
Social Work	492	2875
Purchased	2397	5720
	4093	10641

TABLE 10
NO. INFANTS SCREENED AND CONFIRMED THROUGH
NEWBORN SCREENING PROGRAM
Calendar Years 1986 and 1987

Year	Estimated No. Screened	No. Confirmed Cases	
		PKU	Hypothyroid
1986	18,100	2	4
1987	18,300	4	6

TABLE 11
DIAGNOSTIC AND COUNSELING SERVICES BY MEDICAL GENETICS SERVICES
FY 1986-87

No. of Families Seen	188
No. Phone Contacts	323
No. Individuals Seen in Neighbor Islands Clinics:	
Kauai	4
Hilo (2 clinics)	10
Kona	7
Maui	5

TABLE 12
A. REASON FOR STUDENTS HEALTH ROOM VISITS BY ISLANDS [a]
School Health Services Branch
Department of Health
State of Hawaii
1986-87

Island	Injury	Illness	Medication		TLC	Non-health
			SA[c]	Auth.[d]		
Oahu	169,951	198,567	9,232	46,600	17,075	19,902
Hawaii	24,816	38,019	312	709	2,791	2,788
Maui[b]	17,721	24,589	531	1,251	3,921	2,309
Kauai	11,076	12,256	110	104	1,203	1,957
TOTAL	223,564	273,431	10,185	48,664	24,990	26,956

a/ Numbers are approximate.
b/ Maui includes the islands of Maui, Molokai and Lanai.
c/ Self-administration
d/ Authorized.

TABLE 13
B. DISPOSITION OF STUDENTS AFTER HEALTH ROOM VISITS, BY ISLANDS [a]
School Health Services Branch
Department of Health
State of Hawaii
1986-87

Island	Total Seen		Sent Home	Returned to Class	Remained in Health Room
	Students	Adults			
			(20.2)[c]	(78.4)[c]	(1.6)[c]
Oahu	461,327	523	93,011	361,483	7,355
			(25.0)	(73.5)	(1.64)
Hawaii	69,435	82	17,359	51,018	1,140
			(21.8)	(75.85)	(2.7)
Maui[b]	50,322	156	10,959	38,171	1,348
			(24.0)	(75.1)	(1.1)
Kauai	26,697	62	6,398	20,056	305
TOTAL	607,781	823	127,727	470,728	10,148

a/ Numbers are approximate.
b/ Maui includes the islands of Maui, Molokai and Lanai.
c/ Numbers in parenthesis are percentages of total seen.

TABLE 14
PHYSICAL EXAMINATION & IMMUNIZATION STATUS REPORT
School Health Services Branch
Department of Health
State of Hawaii
1986-87

GRADE	ENROLLMENT	# DEFICIENT	IMMUNIZATION DEFICIENCIES					TB	a/ R.E.	b/ M.E.	c/ P.E
			DPT	OPV	MEASLES	RUBELLA	MUMPS				
PRESCHOOL 6	91,282	1,363 (1.49%)	1,140	901	346	413	413	5	258	241	563
7-9	35,938	940 (2.6%)	521	495	300	483	486	15	71	95	296
10-12	36,169	1,314 (3.6%)	558	559	313	662	646	78	56	127	227
SPECIAL EDUCATION	1,850	30 (1.6%)	23	16	7	7	8	-	10	16	13
TOTAL	165,239	3,647 (2.2%)	2,242	1,971	966	1,565	1,553	98	395	479	1,099

a/ R.E. - Religious Exemption
b/ M.E. - Medical Exemption
c/ P.E. - Physical Exemption

TABLE 15
HEALTH PROBLEM SUMMARY LIST
School Health Services Branch
Department of Health
State of Hawaii
1986-87

CONDITION	DISTRICT							
	Honolulu	Windward	Central	Leeward	Hawaii	Maui	Kauai	Totals
Allergy	606	1,223	959	861	593	419	319	4,980
Anemia	38	7	42	15	6	2	16	126
Anorexic	3	1	-	-	-	-	-	4
Arthritis	17	7	8	12	13	6	3	66
Asthma	886	902	1,007	1,093	783	513	639	5,823
Battered Child Syndrome	-	-	-	-	7	-	-	7
Cancer	19	10	16	20	7	4	4	80
Cardiac	90	78	64	61	80	48	54	475
Cerebral Palsy	47	28	57	57	22	8	14	233
Child Abuse	6	9	28	-	-	-	1	44
Child Neglect	-	1	2	5	1	4	3	16
Cystic Fibrosis	-	1	5	1	-	-	-	7
Diabetes Mellitus	23	16	30	26	18	13	6	132
Ear	671	396	393	494	403	396	189	2,942
Eye	132	225	101	103	264	114	107	1,046
Glomerulonephritis	13	14	4	7	8	8	7	61
Hansen's Disease	1	-	-	-	-	-	-	1
Hemophilia	2	3	3	3	1	1	1	14
Hypertension	11	7	6	4	8	2	7	45
Hyperthyroidism	4	2	4	4	3	-	3	20
Hypothyroidism	9	4	10	1	5	-	1	30
Muscular Dystrophy	7	9	6	14	2	2	4	44
Obesity	61	64	69	61	-	9	21	285
Pregnant	74	45	24	77	-	50	16	286
Rheumatic Fever	38	17	7	28	-	4	2	96
Scoliosis	173	122	197	103	-	109	43	747
Seizures	195	94	148	158	-	82	46	723
Spina Bifida	10	1	5	10	-	2	3	31
Suicide	24	6	-	4	-	3	3	40
Tuberculosis	-	-	-	-	-	-	-	-
Other	352	374	178	337	-	119	57	1,417
TOTAL	3,512	3,666	3,373	3,559	2,224	1,918	1,569	19,821

TABLE 16
SCHOOL HEALTH NURSE SERVICE BY CASE TYPE
1986-87

	Honolulu	Windward	Central	Leeward	Hawaii	Maui	Kauai	Totals
Health Guidance	1,312	954	1,391	838	423	724	426	6,068
Absenteeism	180	64	103	105	18	90	50	610
Abuse/Neglect	41	38	85	42	49	66	3	324
Allergy/Asthma	122	27	589	141	79	68	20	1,046
Cardiac	265	12	52	33	34	44	9	449
Diabetes	87	14	64	29	22	59	-	275
Seizures	699	61	199	144	148	105	11	1,367
Other Disease Conditions	1,782	172	733	569	370	86	35	3,747
Orthopedic	320	52	240	384	78	128	130	1,332
Communicable Disease	-	101	135	117	31	71	7	462
Tuberculosis	20	55	83	22	50	30	14	274
Ukus(Pediculosis)	248	62	149	127	100	244	8	938
Health Requirements	599	342	723	252	384	443	69	2,812
Medication	1,420	582	1,127	768	65	215	21	4,198
Maternity	3,929	23	40	1,227	61	111	102	5,493
Family Planning	7	21	10	21	28	24	3	114
Emotional Behavior	285	65	293	176	43	126	26	1,014
Hyperactive/Learning Problem	130	302	702	367	49	79	23	1,652
Other Developmental Disability	669	85	280	165	36	327	12	1,574

TABLE 17
VISION STATISTICS
School Health Services Branch
Department of Health, State of Hawaii
1986-87

Type of School	Total Number Screened	Number Referred	% Ref.	No. of Completed Referrals	% Comp. Ref.	No. New Deficit Findings	% New Def. Find.	% Def. Find. of No. Screen.	No. New Glasses Pre-scribed	% New Glasses	% New Glass of No. Screen	% Over Ref.
Preschools	777	18	2.3	9	50	6	67	0.8	3	50	0.4	33.0
Private/Parochial	994	28	2.8	21	75	18	86	1.8	14	78	1.4	4.8
Dept. of Educ.	110,115	2,707	2.4	1,866	69	1,641	88	1.5	1,147	70	1.0	9.3
Oahu	78,020	2,010	2.6	1,380	69	1,233	89	1.6	845	68	1.1	8.0
Hawaii	15,428	382	2.5	237	62	197	83	1.3	144	73	0.9	15.6
Maui	10,663	238	2.2	178	75	141	79	1.3	103	73	1.0	14.0
Kauai	6,004	77	1.3	71	92	70	98	1.2	55	78	0.9	1.4
Total	111,886	2,753	2.5	1,896	69	1,665	88	1.5	1,164	70	1.0	9.4

TABLE 18
HEARING STATISTICS
School Health Services Branch
Department of Health, State of Hawaii
1986-87

Type of School	New Cases			Old Cases			No. of Completed Referrals*	% Comp. Ref.	Number Deficit Finding*	% Def. Find.	% Def. Find. of Number Screened*	Over Ref.
	Number Screened	Number Referred	% Referred	No. Screened	No. Referred	% Referred						
Preschools	8,406	552	6.5	150	43	29	415	70	376	91	4.4	9.4
Private/Parochial Schools	8,376	185	2	253	46	18	154	67	138	90	1.6	11.0
Dept. of Educ.	72,419	1,867	2.5	3,921	1,004	26	1,849	64	1,690	91	2.2	9.0
Oahu	51,908	1,226	2	2,440	589	24	1,192	66	1,079	91	2.0	9.5
Hawaii	9,684	310	3	764	213	28	284	54	263	93	2.5	7.4
Maui	6,951	226	3	467	125	27	310	88	288	93	3.9	7.1
Kauai	3,876	105	3	250	77	31	63	35	60	95	1.4	4.8
Total	89,201	2,604	3	4,324	1,093	25	2,418	65	2,204	91	2.4	9.0

*Includes old cases.

TABLE 19
NUMBER OF STUDENTS RECEIVING OCCUPATIONAL THERAPY SERVICES
BY CATEGORY AND DISTRICT, FISCAL YEAR 1986-87
School Health Services Branch
Department of Health, State of Hawaii

	Honolulu	Windward	Central	Leeward	Hawaii	Maui	Kauai	Total
Severely Multiply Handicapped	38	20	31	52	24	19	14	198
Learning Disabled	116	152	88	49	69	11	11	496
Mild Ment. Retarded	31	29	26	13	15	4	-	118
Mod. Ment. Retarded	29	14	10	19	14	2	-	88
Sev./Prof. Ment. Retarded	16	1	4	3	7	-	2	33
Ortho. Handicapped	51	10	27	17	25	5	5	140
Deaf/Blind	2	1	2	2	-	-	-	7
Emot. Handicapped	17	6	10	8	5	1	-	47
Visually Impaired	6	1	2	1	1	-	-	11
Hearing Impaired	3	3	1	-	2	-	-	9
Learning Impaired	20	17	19	11	24	8	8	107
Others	77	49	85	63	39	10	22	345
Total	406	303	305	238	225	60	62	1599

TABLE 20
NUMBER OF STUDENTS RECEIVING PHYSICAL THERAPY SERVICES
BY CATEGORY AND DISTRICT, FISCAL YEAR 1986-87
School Health Services Branch
Department of Health, State of Hawaii

	Honolulu	Windward	Central	Leeward	Hawaii	Maui	Kauai	Total
Severely Multiply Handicapped	42	23	34	64	24	20	14	221
Learning Disabled	29	11	4	9	7	8	9	77
Mild Ment. Retarded	27	8	6	6	4	8	7	66
Mod. Ment. Retarded	25	8	11	13	10	4	2	73
Sev./Prof. Retarded	19	1	2	7	4	-	1	34
Ortho. Handicapped	63	26	33	31	31	9	5	198
Deaf/Blind	1	4	-	-	1	1	-	7
Emot. Handicapped	2	1	1	-	2	-	-	6
Visually Impaired	5	-	2	2	3	-	-	12
Hearing Impaired	6	3	1	2	2	2	1	19
Learning Impaired	29	11	18	15	13	7	5	98
Others	19	4	17	7	13	2	8	70
Total	267	102	129	156	114	61	52	881

COMMUNICABLE DISEASE DIVISION

EPIDEMIOLOGY BRANCH
INFECTIOUS DISEASE SUMMARY

For the second year, there was a decrease in the total reports of infectious diseases. In 1986, 9,676 reports were received. In 1987, a total of 7,494 cases of infectious diseases were reported to the Epidemiology Branch.

ZOONOTIC DISEASES. There were 475 culture-confirmed cases of salmonellosis reported in 1987, an increase of 9% over the 428 culture-confirmed cases reported in 1986. The 1987 total includes cases associated with two large outbreaks; barbecue chicken fundraisers and the Honolulu Marathon carbo-loading meal. Twenty-four cases of leptospirosis were reported in 1987, an increase of 60% over the 15 cases reported in 1986. Included in the 1987 totals were three outbreaks; eight cases on Kauai associated with swimming in the Waimea River, and two cases each on Oahu associated with a swine farm and a corn farm. In 1987, five cases of human rabies exposure were investigated by the Branch. Exposure for the five included the Philippines, Thailand, Bali, Canada, and Florida. Services rendered included evaluation of exposure, recommended prophylaxis and coordination of provision of prophylactic products to physicians.

FOOD POISONING. Two hundred fifteen (215) food complaints were received in 1987 compared to 188 incidents in 1986. Ciguatera fish poisoning incidents increased from 19 in 1986 to 40 in 1987. Scombroid fish poisoning incidents increased from eight incidents in 1986 to 13 incidents in 1987. Three outbreaks involving 100 or more cases were investigated in 1987.

VACCINE-PREVENTABLE DISEASES. Three hundred thirty-two (332) cases of influenza were reported in 1987 compared to 316 cases in 1986. Influenza activity in early 1987 was due to Influenza A/H1N1. In October and November 1987, activity was due to Influenza B/Ann Arbor.

Seven cases of measles (one indigenous) were reported in 1987, a decrease of 81% from the 37 cases reported in 1986. Sixty-nine cases of rubella (all imported) were reported in 1987, an eight-fold increase over the eight cases reported in 1986. Hawaii is considered to be free of measles and rubella in our indigenous population.

There were 245 cases of pertussis reported in 1987, a 480% increase over the reported incidence for 1986. The 1987 incidence was the highest reported incidence in Hawaii in 40 years. Pertussis is currently epidemic in Hawaii. Possible reasons for the increased incidence is reduced immunization in the very young, the result of concern with adverse reactions of the vaccine.

There was one case of diphtheria and tetanus reported in 1987. No case of poliomyelitis was reported.

HEPATITIS. The Hepatitis B Perinatal Program (HBPP) initiated in December, 1985, has as its goal the reduction of the perinatal spread of hepatitis B in Hawaii. In 1987, 167 hepatitis B carrier women and 176 babies born to hepatitis B carrier women were registered into the HBPP. The distribution by birthplace of these 167 women is shown in Figure 1. Between the inception of the program and the end of 1987, a total of 366 hepatitis B carrier women were registered into the program, and 337 babies born to carrier mothers were started on the hepatitis B vaccine series.

SEXUALLY TRANSMITTED DISEASES. There were 1,159 gonorrhea cases reported for calendar year 1987. This is the seventh consecutive year Hawaii has recorded a decrease in the total number of gonorrhea cases reported. The gonorrhea case rate of 107.1 cases per 100,000 population is lower than the case rate reported in 1970 and far exceeds the National 1990 Objective of 280 cases per 100,000 population. The continued large decrease in male gonorrhea cases (primarily male homosexual gonorrhea cases) has resulted in a leveling off of the proportion of male to female gonorrhea cases. Fifty-six (56) percent of the total gonorrhea cases reported in 1987 were in men, the lowest proportion since 1973.

There were 78 Penicillinase-producing Neisseria gonorrhoeae (PPNG) reported in 1987. Most of these cases were either directly imported by travelers from the Far East or were epidemiologically linked to the Far East, indicating little endemic spread in Hawaii.

There were 49 infectious syphilis cases reported in 1987, compared with 48 cases reported in 1986. The majority of the early infectious syphilis cases were reported in the last three months of 1987.

Hawaii reported 79 new AIDS cases in calendar year 1987. The cumulative total number of AIDS cases reported in Hawaii through 1987 is 190, of which 105 are known to have died.

TABLE 1

NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES
STATE OF HAWAII, 1983, 1984, 1985, 1986, and 1987

	1983		1984		1985		1986		1987	
Population	1,023,200		1,038,700		1,053,900		1,062,300		1,082,502	
Disease	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Total	11,206	15	8,495	30	11,358	42	9,762	39	8,153	71
AIDS	8	3	13	8	32	26	58	27	79	41
Amebiasis	18	-	15	-	6	-	10	-	-	-
Brucellosis	-	-	-	-	-	-	1	-	-	-
Chancroid	-	-	-	-	-	-	-	-	-	-
Chickenpox	1,442	-	834	-	1,494	-	1,386	-	1,484	-
Conjunctivitis, infectious	56	-	48	-	157	-	185	-	52	-
Diphtheria	-	-	-	-	-	-	-	-	1	-
Gonorrhea	2,886	-	2,664	-	2,162	-	1,619	-	1,159	-
Hansen's Disease a/	46	-	105	5	31	-	37	-	25	-
Hepatitis A	55	-	33	1	109	-	14	-	37	-
Hepatitis B	73	1	74	4	135	4	77	2	68	8
Hepatitis non-A, non-B	15	-	12	-	10	-	6	-	2	-
Hepatitis unspecified	10	-	11	1	6	3	4	-	3	5
Influenza	494	1	328	-	1,009	-	316	3	332	5
Leptospirosis b/	16	-	13	-	13	1	15	-	24	-
Lymphogranuloma venereum	-	-	-	-	-	-	-	-	-	-
Malaria c/	2	-	5	-	17	-	1	-	3	1
Measles (Rubeola)	2	-	142	-	31	-	37	-	5	-
Meningitis, aseptic & viral	253	-	108	-	137	-	192	-	104	-
Meningitis, haemophilus	40		30		21		27		22	-
Meningitis, meningococcal	5	-	3	-	9	-	3	-	11	-
Mononucleosis, infectious	65	-	30	-	58	-	38	-	9	-
Mumps	20	-	22	-	19	-	24	-	12	-
Pertussis	3	-	102	-	24	-	51	-	245	-
Poliomyelitis	-	-	-	-	-	-	-	-	-	-
Rubella	1	-	5	-	44	-	8	-	32	-
Rubella, congenital	-	-	-	-	-	-	-	-	-	-
Salmonellosis	335	-	380	-	337	-	428	1	475	-
Scarlet fever & other strep infections	4,814	-	2,973	-	5,036	-	4,892	-	3,620	-
Shigellosis	134	-	165	-	138	-	81	-	79	-
Syphilis, primary & secondary	99	-	92	-	88	-	38	-	28	-
Syphilis, early latent	47	-	54	-	30	-	10	-	21	-
Syphilis, late & late latent	13	-	4	-	5	-	8	-	15	-
Tetanus	-	-	1	-	3	-	-	-	1	-
Trichinosis	1	-	1	-	1	-	7	-	-	-
Tuberculosis	236	10	218	11	189	8	180	6	195	11
Typhoid fever	4	-	5	-	5	-	8	-	8	-
Typhus, murine	13	-	5	-	2	-	1	-	2	-

a/ 1983-1984 includes reinstated cases. 1985-1986 excludes reinstated cases.
b/ Includes previously unreported cases.
c/ Malaria acquired outside the State.

TABLE 2

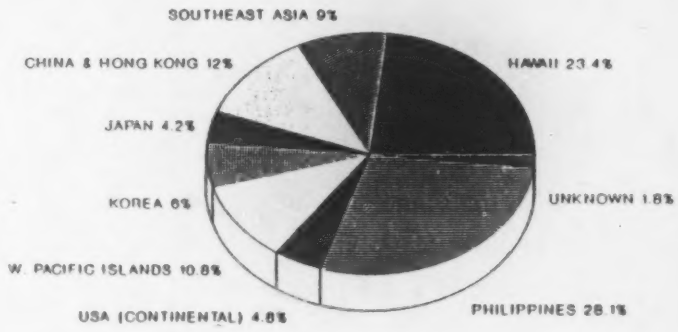
COMMUNICABLE DISEASE REPORT BY GEOGRAPHIC AREAS
STATE OF HAWAII, 1987

Disease	State		TOTAL CASES a/						Military Active Duty
			Hawaii	Oahu	Kauai	Lanai	Maui	Molokai	
Total	Number 8,153	Rate b/ 753.0	886	7,033	113	-	69	52	367
AIDS	79	7.3	4	62	2		11		-
Amebiasis	-	-	-	-	-	-	-	-	-
Brucellosis	-	-	-	-	-	-	-	-	-
Chancroid	-	-	-	-	-	-	-	-	-
Chickenpox	1,484	137.0	91	1,364	22	-	5	2	1
Conjunctivitis, infec.	52	4.8	24	12	14	-	-	2	-
Diphtheria	1	0.1	-	1	-	-	-	-	-
Gonorrhea	1,159	107.1	66	1,073	10	-	9	1	289 c/
Hansen's disease d/	25	2.3	4	18	2	-	1		-
Hepatitis A	37	3.4	1	35	1	-	-	-	1
Hepatitis B	68	6.3	1	58	3	-	6	-	5
Hepatitis non-A, non-B	2	0.2	1	1	-	-	-	-	-
Hepatitis unspecified	3	0.3	-	-	2	-	1		-
Influenza	332	30.7	20	296	3	-	-	13	-
Leptospirosis	24	2.2	7	8	9	-	-	-	-
Lymphogranuloma venereum	-	-	-	-	-	-	-	-	-
Malaria (All imported)	3	0.3	2	-	1	-	-	-	-
Measles (Rubeola)	5	0.5	-	5	-	-	-	-	-
Meningitis, aseptic & viral	104	9.6	8	91	4	-	1	-	7
Meningitis, haemophilus	22	2.0	4	16	1	-	1	-	-
Meningitis, meningo.	11	0.9	3	7	-	-	-	1	1
Mononucleosis, infec.	9	0.8	1	8	-	-	-	-	2
Mumps	12	1.1	1	11	-	-	-	-	-
Pertussis	245	22.6	10	230	1	-	4	-	2
Poliomyelitis	-	-	-	-	-	-	-	-	-
Rubella	32	3.0	1	31	-	-	-	-	-
Rubella, congenital	-	-	-	-	-	-	-	-	-
Salmonellosis	475	43.9	45	404	15	-	11	-	-
Scarlet fever & other streptococcal infec.	3,620	334.4	578	3,001	10	-	-	31	33
Shigellosis	79	7.3	2	67	9	-	1		-
Syphilis, primary & sec.	28	2.6	-	28	-	-	-	-	11 c/
Syphilis, early latent	21	1.9	-	21	-	-	-	-	12 c/
Syphilis, late & late latent	15	1.4	2	12	1	-	-	-	3 c/
Tetanus	1	0.1	-	1	-	-	-	-	-
Trichinosis	-	-	-	-	-	-	-	-	-
Tuberculosis	195	18.0	9	164	3	-	17	2	-
Typhoid fever	8	0.7	-	7	-	-	1	-	-
Typhus, murine	2	0.2	1	1	-	-	-	-	-

a/ Resident cases (includes military on active duty)
b/ Number per 100,000 total population (1,082,502)
c/ Reported cases by military facilities
d/ New and transfer-in cases

FIGURE 1

HEPATITIS B CARRIER PREGNANT WOMEN
BY PLACE OF BIRTH FOR 1987



TOTAL CASES • 16

TABLE 3

SEXUALLY TRANSMITTED DISEASE CASES REPORTED TO THE DEPARTMENT OF HEALTH BY DIAGNOSIS AND SOURCE OF REPORT

STATE OF HAWAII, 1987

Type of Disease		Total	Private Physicians, Hospitals and Institutions	Public Clinics, Hospitals and Institutions	Military
Total Cases	Number	1,223	486	421	316
	Percent	100	40	34	26
Syphilis:					
Primary and Secondary		28	9	8	11
Early Latent		21	4	5	12
Late and Late Latent		15	5	6	4
Gonorrhea		1,159	467	403	289
Other Venereal Diseases		--	--	--	--

TABLE 4

TOTAL PRIMARY AND SECONDARY SYPHILIS CASES BY AGE

STATE OF HAWAII 1982 - 1987

Age in Years	1982	1983	1984	1985	1986	1987
Total All Ages	120	99	92	88	38	28
0 - 14	--	--	--	--	--	--
15 - 19	4	4	7	4	2	--
20 - 24	31	37	25	16	7	3
25 - 29	30	17	23	23	9	9
30 - 34	18	19	11	16	6	5
35 - 39	18	7	8	16	4	3
40 - 44	8	7	10	5	3	5
45 - 49	4	3	4	4	1	2
50 and Over	6	3	4	2	4	1
Unknown	1	2	--	2	2	--

TABLE 5

TOTAL GONORRHEA CASES BY AGE

STATE OF HAWAII 1982 - 1987

Age in Years	1982	1983	1984	1985	1986	1987
Total All Ages	3706	2886	2664	2162	1619	1159
0 - 14	13	9	12	6	8	7
15 - 19	472	359	337	377	272	166
20 - 24	1441	1056	1032	842	606	387
25 - 29	808	649	586	419	339	262
30 - 34	448	351	288	198	176	135
35 - 39	186	143	162	109	83	68
40 - 44	102	64	86	52	39	40
45 - 49	37	37	23	13	11	11
50 and Over	47	37	41	26	11	34
Unknown	152	181	117	120	74	69

TABLE 6

NUMBER AND RATE PER 100,000 POPULATION OF TOTAL REPORTED GONORRHEA CASES

STATE OF HAWAII, 1970 - 1987

	15 - 19 YEARS			20 - 24 YEARS			25 - 29 YEARS			ALL AGES		
YEAR	CASES	POPULATION[1/]	RATE	CASES	POPULATION[1/]	RATE	CASES	POPULATION[1/]	RATE	CASES	POPULATION[1/]	RATE
1970	264	71,993	366.7	712	81,732	871.1	223	59,583	374.3	1,494	769,913	194.0
1971	383	75,600	506.6	888	87,900	1,010.2	326	62,500	521.6	1,975	801,000	246.6
1972	365	78,800	463.2	925	91,000	1,016.5	363	68,200	532.3	2,080	828,000	251.2
1973	482	81,500	591.4	987	94,000	1,050.0	488	72,200	675.9	2,408	851,000	283.0
1974	576	83,200	692.3	1,209	96,200	1,256.8	549	76,400	718.6	2,923	867,000	337.1
1975	649	84,700	766.2	1,279	98,800	1,294.5	646	81,000	797.5	3,126	884,000	353.6
1976	719	86,200	834.1	1,360	100,300	1,355.9	798	86,100	926.8	3,591	902,000	398.1
1977	733	86,400	848.4	1,633	101,800	1,604.1	940	87,400	1,075.5	4,256	916,000	464.6
1978	510	86,400	590.3	1,269	103,700	1,223.7	737	89,600	822.5	3,409	929,000	367.0
1979	711	86,900	818.2	1,714	105,200	1,629.3	908	92,700	979.5	4,373	950,000	460.3
1980	620	86,446	717.2	1,758	105,682	1,663.5	870	95,287	913.0	4,383	964,691	454.3
1981	548	87,900	623.4	1,761	107,500	1,638.1	892	96,900	920.5	4,289	980,900	437.3
1982	472	89,300	528.6	1,441	109,200	1,319.6	808	98,400	821.1	3,706	996,700	371.8
1983	359	91,700	391.5	1,056	112,100	942.0	649	101,100	641.9	2,886	1,023,200	282.1
1984	337	93,000	362.4	1,032	113,800	906.9	586	102,600	571.2	2,664	1,038,730	256.5
1985	377	94,400	399.4	842	115,500	729.0	419	104,100	402.5	2,162	1,053,900	205.1
1986	272	95,100	286.0	606	116,400	520.6	339	104,900	323.2	1,619	1,062,300	152.4
1987	166	96,900	171.3	387	118,600	326.3	262	106,900	245.1	1,159	1,082,500	107.1

Population data is an estimated total resident population based on figures taken from the 1980 census, which includes Armed Forces and their dependents in Hawaii, and residents temporarily absent, and excludes visitors present.

1/ Data shown only for computational convenience and not intended to imply accuracy beyond three significant figures.

The reported rates of Gonorrhea by selected age groups in Hawaii, according to their numerical ranking order are: 1) 20 - 24 years; 2) 25 - 29 years; and 3) 15 - 19 years.

TABLE 7

HAWAII RESIDENT GONORRHEA (GC) MORBIDITY BY YEAR (1974 - 1987),
CASE RATE PER 100,000 POPULATION, BY SEX, AND RESISTANCE TO PENICILLIN

YEAR	POPULATION[a]	TOTAL GC	RATE GC	# FEMALE GC	# MALE GC	% MALE GC	TOTAL PPNG[b]
1974	867,000	2,923	337.1	1,176	1,747	60%	-
1975	884,000	3,126	353.6	1,209	1,917	61%	-
1976	902,000	3,591	398.1	1,285	2,306	64%	10
1977	916,000	4,256	464.6	1,533	2,723	64%	22
1978	929,000	3,409	367.0	1,164	2,245	66%	26
1979	950,000	4,373	460.3	1,400	2,973	68%	63
1980	964,691	4,383	454.3	1,381	3,002	68%	162
1981	980,900	4,289	437.3	1,259	3,030	71%	184
1982	996,700	3,706	371.8	1,157	2,549	69%	99
1983	1,023,200	2,886	282.1	1,014	1,872	65%	93
1984	1,038,730	2,664	256.5	920	1,744	65%	113
1985	1,053,900	2,162	205.1	872	1,290	60%	110
1986	1,062,300	1,619	152.4	684	935	58%	95
1987	1,082,500	1,159	107.1	505	654	56%	78

a/ Source: Hawaii State Department of Planning and Economic Development, "The Population of Hawaii, 1980: Final Census Results" Statistical Report 143, March 16, 1981.

b/ Abbreviation for Penicillinase-producing Neisseria gonorrhoeae the penicillin-resistant form of gonorrhea.

TABLE 8

HAWAII INFECTIOUS SYPHILIS MORBIDITY TREND
BY YEAR (1976 - 1987) AND SEX

YEAR	P & S[a]	EL[b]	TOTAL	# FEMALES	# MALES	% MALES
1976	99	58	157	22	135	86
1977	46	37	83	13	70	84
1978	51	34	85	11	74	87
1979	106	69	175	12	163	93
1980	131	74	205	7	198	97
1981	75	47	122	6	116	95
1982	120	66	186	9	177	95
1983	99	47	146	15	131	90
1984	92	54	146	28	118	81
1985	88	30	118	25	93	79
1986	38	10	48	10	38	79
1987	28	21	49	16	33	67

a/ P & S - Primary and secondary stage of syphilis are the infectious stages of syphilis when the lesions are present.

b/ Early Latent stage of syphilis is an early stage of syphilis under one year's duration.

TABLE 9

DISTRIBUTION OF HAWAII ACQUIRED IMMUNODEFICIENCY SYNDROME
(AIDS) CASES REPORTED BY YEAR OF DIAGNOSIS, SEX, AND
NUMBER OF KNOWN DEATHS
1981-1987

YEAR	TOTAL AIDS	# MALES	# FEMALES	KNOWN DEATHS
1981	1	0	1	1
1982	3	3	0	3
1983	4	4	0	4
1984	17	16	1	15
1985	37	37	0	35
1986	70*	65*	5	54**
1987	83	80	3	44

* 1 Pediatric Case included here.

**1986 Statistical Report Data corrected from cases reported by year to cases reported by year of diagnosis.

SOURCE: AIDS Surveillance Program, Department of Health

HANSEN'S DISEASE IN HAWAII
1987

Hawaii continues to have the highest incidence and prevalence rates for Hansen's disease within the United States.

However, in 1987 of the 24 people who were newly diagnosed with the disease, only five were Hawaii-born. Of the five Hawaii-born cases, two occurred in families with known Hansen's disease. The remaining 19 cases were foreign-born (Tables 6 and 9). Of these, 14 came from the Philippines, 2 from Samoa, 2 from the Marshall Islands, and 1 from Truk. Most new cases reside on Oahu (Table 4).

Of the foreign-born, 5 had the onset of illness before coming to Hawaii and 14 developed symptoms here. Of the 14 cases with symptoms developing here, the median interval between onset and diagnosis was 9 months (Range: 0-57 months).

Of the 24 new cases, 14 were paucibacillary (I,TT,BT) and 10 multibacillary (BB,BL,LL). Among the 10 multibacillary, 2 were borderline lepromatous (BL), 5 were lepromatous (LL), and 3 were mid-borderline (BB).

Table 5 shows the age distribution at time of registration in Hawaii. All age groups were affected but peak incidence was found in the 10-19, 20-29, and 50-59 year old age groups. The 50 to 59 age group also had the highest age-specific incidence. The median age of all new patients in 1987 was 42 years.

In addition, 2 cases were returned to registry (these being discharged cases who were reviewed and placed back on treatment and surveillance) and 44 cases were removed from registry. There were 633 cases on the registry as of 12/31/87.

All newly diagnosed cases become patients of the Hansen's Disease Community Program. This program provides for treatment and follow-up of all patients (532) who are not on the Kalaupapa or Hale Mohalu registries. It provides a system of care through a network of services including private physicians, Public Health Nurses, and various community resources, with the program coordinating and monitoring the patient's care. The Program also provides certain direct patient care services through its Nurses, Social Workers, Paramedical Assistants and Physician. Household contacts of known cases are also followed and periodically examined to provide for the earliest possible detection of the disease in this at-risk population.

For patients requiring more intensive care, inpatient care is available at Hale Mohalu at Leahi, on Oahu. This includes patients with severe reactions or complications and patients who developed disabilities prior to the availability of effective drug therapy. Also, 97 cases are still on the Kalaupapa registry and retain the privilege of residing at the Kalaupapa community and being admitted to the hospital there whenever necessary.

TABLE 1

TOTAL HANSEN'S DISEASE PATIENTS REGISTERED BY REGISTER STATUS AND YEAR
STATE OF HAWAII 1980-1987

Register Status	1980	1981	1982	1983	1984	1985	1986	1987
Total Cases on Register January 1.....	458	474	506	550	578	661	651	653
New cases added during the year..	34	49	49	41	43	31	37	24
Formerly diagnosed cases returned to register.....	3	4	11	5	58	4	6	2
Other additions (registry correction).....	-	-	-	-	3	7	1	-
Removed during year.....	21	21	16	18	21	52	42	46
Deaths.....	8	6	4	6	15	10	4	6
Left the State.....	4	1	12	12	5	39	6	14
Discharged from further surveillance.....	9	14	-	-	-	-	26	25
Other deductions (registry correction).....	-	-	-	-	1	3	6	1
Total cases on register December 31.....	474	506	550	578	661	651	653	633

TABLE 2

HANSEN'S DISEASE PATIENTS, KALAUPAPA REGISTRY STATUS
STATE OF HAWAII 1980-1987

Register Status	1980	1981	1982	1983	1984	1985	1986	1987
Total patients-Kalaupapa Registry January 1.....	124	119	115	112	110	101	101	99
Deaths.....	5	4	3	2	8	0	2	2
Transfer from Registry.....	-	-	-	-	-	-	-	-
Transfer to Registry.....	-	-	-	-	-	-	-	-
Left the State.....	-	-	-	-	-	-	-	-
Other (Registry correction-deduction).....	-	-	-	-	1	-	-	-
Total patients - Kalaupapa Registry - December 31.....	119	115	112	110	101	101	99	97
Reactivated cases..... (criteria: positive smears)	5	6	6	6	2	0	0	0

TABLE 3

TOTAL CASES OF HANSEN'S DISEASE REGISTERED BY TYPE, LOCATION AND YEAR
STATE OF HAWAII, 1980 - 1987

Type and Location	1980	1981	1982	1983	1984	1985	1986	1987
Total Cases on Registry 12/31	474	506	550	578	661	651	653	633
Medically Released	474	506	550	578	661	651	653	633
At Home	349	385	432	462	555	546	549	532
Kalaupapa	119	115	112	110	101	100	99	97
Hale Mohalu	6	6	6	6	5	5	5	4
Hospital Care								
Total Days	39,996	41,150	41,071	39,288	36,604	35,159	34,471	33,446
Kalaupapa	33,971	34,320	34,565	33,745	30,419	29,006	29,578	28,738
Hale Mohalu	6,025	6,830	6,506	5,543	6,185	5,962	4,688	4,490
Other Hospitals	---	---	---	---	---	191	205	218
Total Contacts December 31	1,400	1,600	1,600	2,000	1,850	2,104	2,115	1,239

TABLE 4

NEW CASES OF HANSEN'S DISEASE BY ISLAND OF RESIDENCE AND YEAR
STATE OF HAWAII, 1980-1987

	1980	1981	1982	1983	1984	1985	1986	1987	TOTAL (%)
ALL ISLANDS	34	49	49	41	43	31	37	24	308 (100)
OAHU	24	35	40	37	33	28	28	17	242 (78.6)
HAWAII	2	6	7	3	1	2	5	4	30 (9.7)
MAUI	4	6	1	-	3	-	2	1	17 (5.5)
KAUAI	4	2	1	1	4	-	2	2	16 (5.2)
MOLOKAI	-	-	-	-	1	1	-	-	2 (0.6)
LANAI	-	-	-	-	1	-	-	-	1 (0.3)

TABLE 5

NEW CASES OF HANSEN'S DISEASE BY AGE GROUP AND YEAR
STATE OF HAWAII, 1980 - 1987

AGE IN YEARS	1980	1981	1982	1983	1984	1985	1986	1987	TOTAL
ALL AGES	34	49	49	41	43	31	37	24	308
0- 9	-	1	1	-	-	-	1	-	3
10-19	5	6	12	2	5	6	5	6	47
20-29	9	11	10	9	6	5	7	6	63
30-39	7	4	8	1	7	2	4	3	36
40-49	2	5	4	9	1	8	5	2	36
50-59	2	10	4	8	7	5	5	6	47
60-69	6	7	5	6	12	2	2	-	40
70- and over	3	5	5	6	5	3	8	1	36

Overall median age for all years = 42 yrs.

FIGURE 1

NEW CASES OF HANSEN'S DISEASE BY AGE GROUP

STATE OF HAWAII, 1987

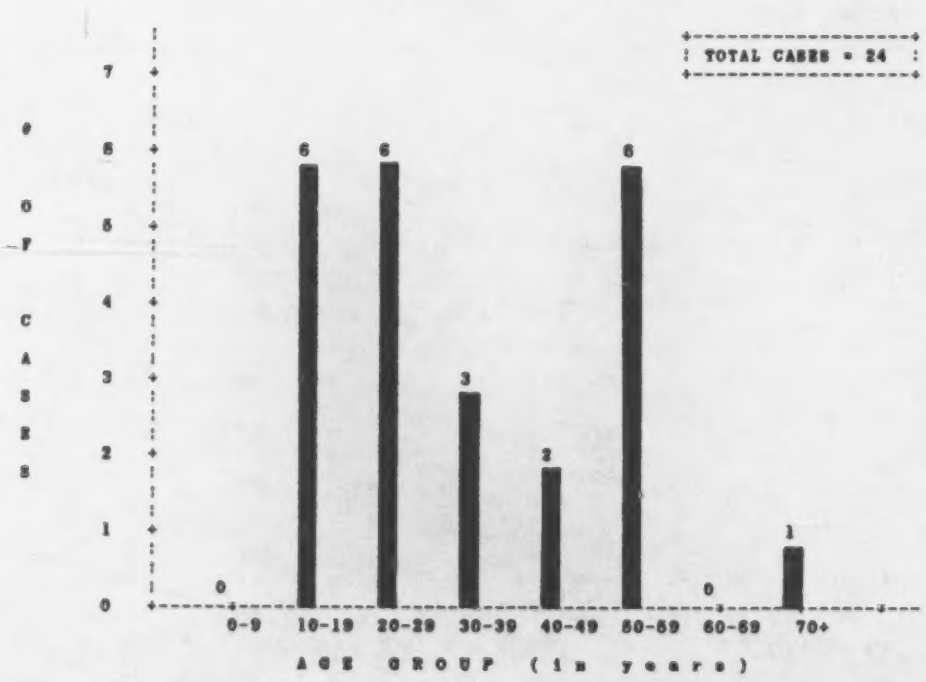


TABLE 6

NEW CASES OF HANSEN'S DISEASE BY PLACE OF BIRTH AND YEAR OF REGISTRATION
STATE OF HAWAII, 1980-1987

	TOTAL	%	1980	1981	1982	1983	1984	1985	1986	1987
HAWAII	30	(9.7)	3	9	2	4	2	2	3	5
SAMOA	38	(12.3)	5	6	5	8	5	3	4	2
FEDERATED STATES OF MICRONESIA	10	(3.2)	-	1	4	2	2	-	-	1
OTHER PACIFIC ISLANDS	7	(2.3)	1d/	-	1a/	-	-	a/ 3d/d/	-	c/ 2d/
PHILIPPINES	204	(66.2)	23	33	35	21	29	20	29	14
VIETNAM	2	(0.6)	-	-	1	-	-	1	-	-
U.S. MAINLAND	7	(2.3)	2	-	-	2	3	-	-	-
OTHER	10	(3.2)	-	-	1e/	4e/ f/g/h/	2i/ k/	2h/ j/	1b/	-
ALL	308	(100)	34	49	49	41	43	31	37	24

a/Tonga
b/Cambodia
c/Canada
d/Marshall Islands
e/India
f/Laos
g/Portugal
h/China
i/Japan
j/Australia
k/not available

TABLE 7

INCIDENCE OF HANSEN'S DISEASE BY ISLAND OF RESIDENCE, 1987

ISLAND	1980 POPULATION*	# OF CASES	RATE PER 100,000
ALL ISLANDS	964,691	24	2.5
OAHU	762,534	17	2.2
HAWAII	92,053	4	4.3
MAUI	62,823	1	1.6
KAUAI	38,856	2	5.1
MOLOKAI	6,049	-	-
LANAI	2,119	-	-

*Source: Hawaii State Department of Planning and Economic Development, The State of Hawaii Data Book 1987, (November 1987), Table 4.

TABLE 8

AGE-SPECIFIC INCIDENCE OF HANSEN'S DISEASE IN HAWAII, 1987

AGE GROUP	NO. OF CASES	POPULATION*	RATE PER 100,000
0-9	0	150,905	-
10-19	6	161,316	3.7
20-29	6	200,969	3.0
30-39	3	148,262	2.0
40-49	2	92,708	2.2
50-59	6	96,587	6.2
60-69	0	66,947	-
70+	1	46,997	2.1
ALL	24	964,691	2.5

*Source: Hawaii State Department of Planning and Economic Development, The State of Hawaii Data Book 1987, (November 1987), Table 18.

FIGURE 2

AGE-SPECIFIC INCIDENCE RATE OF HANSEN'S DISEASE

IN HAWAII, 1987

(per 100,000)

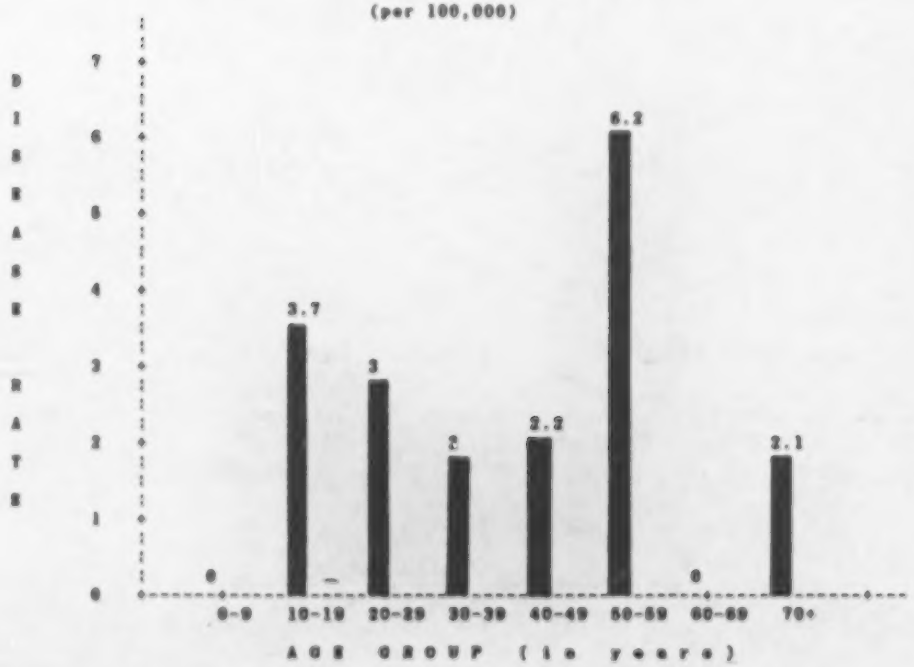


TABLE 9

INCIDENCE OF HANSEN'S DISEASE IN HAWAII, HAWAII-BORN VERSUS FOREIGN-BORN, 1987

	NO OF CASES	POPULATION*	RATE PER 100,000
HAWAII-BORN	5	557,990	0.9
FOREIGN-BORN	19	137,016	13.9
OTHER U.S.	-	269,685	-
ALL GROUPS	24	964,691	2.5

*Source: Hawaii State Department of Planning and Economic Development, The State of Hawaii Data Book 1987, (November 1987), Table 30.

TABLE 10

NEW CASES OF HANSEN'S DISEASE BY PLACE OF RESIDENCE AT ONSET OF SYMPTOMS STATE OF HAWAII, 1987

RESIDENCE	NO. OF CASES
HAWAII	19
OTHER U.S.	1
PHILIPPINES	1
SAMOA	1
OTHER TERRITORIES	2
TOTAL	24

TABLE 11

SEX-SPECIFIC INCIDENCE OF HANSEN'S DISEASE IN HAWAII, 1987

	NO. OF CASES	POPULATION*	RATE PER 100,000
MALES	13	494,683	2.6
FEMALES	11	470,008	2.3
ALL	24	964,691	2.5

*Source: Hawaii State Department of Planning and Economic Development, The State of Hawaii Data Book 1987, (November 1987), Table 18.

ANNUAL SUMMARY 1987

There were 195 new cases of tuberculosis in 1987, an increase of 8.9% from the 179 cases reported the previous year. The foreign-born population continues to suffer the highest incidence. In 1987, 150 of the 195 cases (76.9%) were foreign-born while almost half of the 195 (95 cases or 49.7%) had been born in the Philippines. The next largest foreign-born group was from Korea followed by China (including Peoples Republic of China, Republic of China, and Hong Kong).

The incidence rate for the State was 18.0 cases per 100,000 as compared to 16.9 per 100,000 in 1986. The national rate is estimated to be approximately 9.2 per 100,000 though official statistics have not yet been released. The incidence was 97.6 per 100,000 for the foreign-born population of Hawaii. The rate for the U.S. mainland born population in the State was 4.7 per 100,000 while that for the Hawaii born population was 4.9 per 100,000.

14.9% of the cases of tuberculosis were extrapulmonary. This percentage is similar to that of previous years, in keeping with the national trend of a failure of the incidence of extrapulmonary tuberculosis to decline. There were six cases of miliary tuberculosis and two cases of meningeal tuberculosis. Although confidentiality laws do not permit registry matching between the tuberculosis and AIDS Programs, individual patient data make it clear that the AIDS epidemic has had an impact on the incidence of tuberculosis in the State. At this time it is impossible to quantitate this impact.

There were three cases in children below ten years of age in 1987. All three probably contracted their infection overseas in countries with high prevalence rates for tuberculosis. This indicates a low level of transmission of disease within the State and/or effective programs of early detection of infection and prevention of disease in children.

The Branch continues to provide comprehensive services in terms of case detection and treatment, preventive therapy, and monitoring the occurrence and epidemiologic patterns of tuberculosis. Over 50,000 tuberculin skin tests were administered by personnel of the Tuberculosis Branch and the Public Health Nursing Branch. In keeping with the utilization of the tuberculin skin test as the primary screening method, there was a 16.6% increase in the number survey tests done at the Lanakila Health Center to a total of over 27,000. Concomitant with this was a 24% decrease in the number of survey X-rays which followed a 28% decrease the previous year. Nevertheless over 23,000 chest X-rays were taken. In 1987, 53.3% of the cases were reported by the Department of Health. 44.7% of the cases were detected through one of the screening programs of the Tuberculosis Branch.

More patients are receiving services through the Tuberculosis Branch Outreach Program which includes bilingual paramedical assistants to work with the Filipino and Korean communities. Included in the Outreach Program is directly observed therapy to insure compliance among those patients who are deemed at highest risk of non compliance or deemed to present the greatest difficulties in terms of drug resistant disease.

Tuberculosis remains a significant problem for the State of Hawaii, primarily because of our high proportion of foreign-born residents (approximately 13% in 1986). National data reveal that Honolulu has the highest proportion of cases occurring in foreign-born individuals of any major metropolitan area in the country. Our tuberculosis rate will continue to be determined to a great extent by immigration policies. The epidemic of the Acquired Immunodeficiency Syndrome and the increasing proportion of the population age sixty five and older will likewise have a significant influence on the incidence of tuberculosis. Inspite of these variables, the Tuberculosis Control Program continues to provide efficient and effective services in terms of screening activities, case treatment, preventive therapy, and epidemiologic analysis.

TABLE I

X-RAY SURVEY ACTIVITES FOR TUBERCULOSIS BY COUNTY
STATE OF HAWAII, 1987

Geographic Area	Total Screening Films Taken	X-rays Suspicious of Tuberculosis					
		Total		Tuberculosis Diagnosed Current Disease		Tuberculosis Not Confirmed b/	
		Number	Rate a/	Number	Rate a/	Number	Rate a/
State of Hawaii.	15,893	422	26.6	21	1.3	401	25.2
(County of Honolulu) . . . . . (Lanakila Health Center)	13,551	215	15.9	19	1.4	196	14.5
Routine Survey	6,345	67	10.6	8	1.3	59	9.3
Medical Referrals.	392	6	15.3	-	-	6	15.3
Other Agency Referrals	5,944	112	18.8	10	1.7	102	17.2
Tuberculin Testing Program. . . PHN	802	16	20.0	1	1.2	15	18.7
Extensions of Stay of. . . . . non Immigrant Visas	2	-	-	-	-	-	-
LOPD Discharge Cases	66	14	212.1	-	-	14	212.1
County of Hawaii	1,206	4	3.3	0	-	4	3.3
County of Maui	1,136	203	178.7	2	1.8	201	176.9
County of Kauai.	N/A	N/A	N/A	N/A	N/A	N/A	N/A

a/ per 1,000 survey film
b/ includes inactives and non-tuberculosis disease

TABLE 2

TUBERCULOSIS CASES REPORTED BY GEOGRAPHIC AREA OF RESIDENCE
STATE OF HAWAII, 1987

Geographic Area of Residence	TUBERCULOSIS CASES REPORTED					
	1987		1986		Population	
	Number	Rate a/	Number	Rate a/	Number	Percent
State of Hawaii.	195	18.0	179	16.9	1,082,502	100.0
County of Honolulu	164	19.8	158	19.2	829,288	76.6
City of Honolulu	102	26.2	97	25.2	388,936	35.9
Rest of Oahu	62	14.1	61	14.0	440,352	40.7
County of Hawaii	9	7.8	13	11.8	115,202	10.6
County of Maui	19	21.0	4	4.7	90,305	8.3
County of Kauai.	3	6.3	4	9.0	47,709	4.4

a/ per 100,000 total Population
b/ includes Kalawao County

TABLE 3

TUBERCULOSIS CASES BY PLACE OF BIRTH AND LENGTH OF RESIDENCE
AND NUMBER OF PERSONS ADMITTED TO HAWAII WITH PERMANENT VISAS
STATE OF HAWAII, 1987

Birthplace or Time in Hawaii	1987			1986			Percent	Population*
	Number	Percent	Rate a/	Number	Percent	Rate a/		
Total.	195	100.0	18.0	179	100.0	16.9	100.0	1,082,502
Foreign Born b/.	150	76.9	97.6	139	77.6	92.2	14.2	153,715
1 year or less	61	31.3	-	58	32.4	-		
over 1 year - 2 years.	11	5.6	-	9	5.0	-		
over 2 years - 5 years	14	7.2	-	11	6.1	-		
over 5 years	60	30.8	-	61	34.1	-		
unknown time in State.	4	2.05	-	-	-	-		
Mainland Born.	13	6.7	4.65	10	5.6	3.6	25.8	279,286
Hawaii Born.	32	16.4	4.9	30	16.8	4.7	60.0	649,501
Birthplace Unknown	-	-	-	-	-	-		
U.S. Born Rate (Hawaii + Mainland) .	45	23.1	4.9	40	22.3	4.4	85.8	928,787
U.S. National Average Rate	-	-	-	-	-	-		
Number of Persons Admitted to Hawaii With Permanent Visas c/.	5397	-	-	5557	-	-		

a/ Rate - Cases per 100,000 total civilian population; rate for foreign-born, mainland-born, and Hawaii-born are estimates.
b/ Foreign-born includes people coming to Hawaii from both American and Western Samoa.
c/ Persons admitted to Hawaii with permanent visas include only individuals whose port of entry is Honolulu.
* 7/1/87 population figure

TABLE 4

TUBERCULOSIS CASES BY LOCATION OF DISEASE
AND COUNTY OF RESIDENCE, STATE OF HAWAII, 1988

Location of Disease	State of Hawaii		COUNTY OF RESIDENCE							
			Honolulu		Hawaii		Maui*		Kauai	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.	195	100.0	164	100.0	9	100.0	19	100.0	3	100.0
Pulmonary.	166	85.1	140	85.4	9	100.0	14	73.7	3	100.0
Extrapulmonary										
Pleural.	3	1.5	3	1.8	-	-	-	-	-	-
Lymphatic.	-	-	-	-	-	-	-	-	-	-
Cervical	7	3.6	6	3.65	-	-	1	5.3	-	-
Intrathoracic. . . .	-	-	-	-	-	-	-	-	-	-
Other Lymphatic. . .	1	0.5	-	-	-	-	1	5.3	-	-
Unknown.	-	-	-	-	-	-	-	-	-	-
Bone and/or Joint. . .	1	0.5	1	0.6	-	-	-	-	-	-
Genitourinary.	5	2.6	4	2.4	-	-	1	5.3	-	-
Miliary.	6	3.1	5	3.0	-	-	1	5.3	-	-
Meningeal.	2	1.0	1	0.6	-	-	1	5.3	-	-
Peritoneal	2	1.0	2	1.2	-	-	-	-	-	-
Other.	2	1.0	2	1.2	-	-	-	-	-	-
Site Not Stated.	-	-	-	-	-	-	-	-	-	-

*Includes Kalawao County

TABLE 5

TUBERCULOSIS CASES BY SOURCE OF REPORT AND COUNTY OF RESIDENCE
STATE OF HAWAII, 1987

Source of Report	State of Hawaii		COUNTY OF RESIDENCE							
			Honolulu		Hawaii		Maui*		Kauai	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.	195	100.0	164	100.0	9	100.0	19	100.0	3	100.0
Health Department.	104	53.3	81	49.4	7	77.8	13	68.4	3	100.0
Private Physician.	58	29.7	51	31.1	1	11.1	6	31.6	-	-
Tuberculosis Hospital or OPD . .	4	2.05	4	2.4	-	-	-	-	-	-
General Hospital or OPD.	15	7.7	14	8.5	1	11.1	-	-	-	-
Tripler Army Hospital or VA. . .	11	5.6	11	6.7	-	-	-	-	-	-
Death Certificate.	-	-	-	-	-	-	-	-	-	-
Other.	3	1.5	3	1.8	-	-	-	-	-	-

*Includes Kalawao County

TABLE 6

TUBERCULOSIS CASES BY REASON FOR EXAMINATION AND COUNTY OF RESIDENCE
STATE OF HAWAII, 1987

Reasons for Examination	State of Hawaii		COUNTY OF RESIDENCE							
			Honolulu		Hawaii		Maui*		Kauai	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	195	100.0	164	100.0	9	100.0	19	100.0	3	100.0
Health Department Survey	34	17.4	31	18.9	-	-	3	15.8	-	-
Contact & Source Investigation	4	2.05	3	1.8	-	-	-	-	1	33.3
Positive Reactor or Converter	4	2.05	4	2.4	-	-	-	-	-	-
Extension of Stay, Non-Immigrant Visa	-	-	-	-	-	-	-	-	-	-
Aliens with Waiver of Excludability for Tuberculosis	29	14.9	22	13.4	3	33.3	3	15.8	1	33.3
Aliens with Tuberculosis Not Considered Active	14	7.2	13	7.9	-	-	1	5.3	-	-
Review of Other Visa Films & Evaluation of Foreign-born	2	1.0	2	1.2	-	-	-	-	-	-
Symptoms or Illness	71	36.4	56	34.1	6	66.7	8	42.1	1	33.3
General Hospital & PMD X-ray Findings	-	-	-	-	-	-	-	-	-	-
Death Certificate	-	-	-	-	-	-	-	-	-	-
Other	37	19.0	33	20.1	-	-	4	21.0	-	-
Unknown	-	-	-	-	-	-	-	-	-	-

*Includes Kalawao County

TABLE 7

TUBERCULOSIS CASES BY AGE, RACE, AND SEX
STATE OF HAWAII, 1987

Age Group	ALL RACES			Caucasian		Hawaiian and part Hawaiian		Chinese		Filipino		Japanese		Korean		South East Asia a/		Others b/	
	Total	Male	Female	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Total	195	112	83	8	3	4	3	5	9	66	44	6	10	12	7	4	3	7	5
0 - 4	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
5 - 9	2	2	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-
10 - 19	5	4	1	-	-	-	-	-	-	2	1	-	-	1	-	-	-	1	-
20 - 29	31	12	19	-	1	-	-	1	2	10	12	-	-	-	4	1	-	-	1
30 - 39	26	14	12	2	1	-	1	-	2	8	4	-	-	1	1	1	1	2	2
40 - 49	17	10	7	3	1	-	1	-	-	5	5	-	-	2	-	-	-	-	-
50 - 59	32	19	13	2	-	1	-	-	1	9	8	1	2	5	-	-	1	1	1
60 - 69	38	23	15	1	-	1	1	1	1	13	8	3	3	1	1	1	1	2	-
70 and over	43	28	15	-	-	2	-	3	3	18	6	2	5	2	1	1	-	-	-

a/ Vietnamese - 5, Laotian - 2
b/ Samoan - 2, Black - 3, Marshallese - 2, Indonesian - 2, Afghans - 1, Nepalese - 1, Chilean - 1

DENTAL HEALTH DIVISION

DENTAL HEALTH DIVISION

SUMMARY 1987

The Dental Health Division is responsible for conducting programs for the prevention and control of dental diseases. Other than carrying on planning and surveillance activities it conducts programs aimed at preventing tooth decay and treating oral diseases which exist among select groups of needy people.

Target groups for our services include the homeless and medically indigent, long-term care residents, school-age children, community placed developmentally disabled and mental health clients, low income families and refugees. Preventive services were delivered at public schools Statewide through the Dental Hygiene Branch and treatment services were made available to clients at regional dental clinics on Oahu, at Waimano Training School & Hospital, Hawaii State Hospital and Kalaupapa Settlement and Statewide throughout the County/State Hospital system.

The Division field staff includes 16 Registered Dental Hygienists and 7 Dentists. Tables 1 & 2 reflect clinical activities for both the Dental Hygiene and Hospital Dentistry and Community Services Branches.

TABLE 1

SUMMARY OF DENTAL HEALTH SERVICES

STATE OF HAWAII, FISCAL YEAR 1986 - 1987

TYPE OF SERVICES	NUMBER SERVED
Prevention and Detection	
Number of School Children Given Topical Fluoride Applications	70,395
Number of School Children Referred to Private Dentists	45,732
Number of School Children Given Dental Health Education	20,268
Treatment	
Number of Persons Treated in Institutions	535
Number of Persons Treated in Community-centered Facilities	1,404
Number of Persons Treated in County/State Hospitals	476

TABLE 2

TREATMENT DATA

HOSPITAL DENTISTRY & COMMUNITY SERVICES BRANCH

STATE OF HAWAII, F.Y. 1986-1987

CLINICS	PATIENTS				SELECTED PROCEDURES						
	No. of New Patients	Adults	Minors	NO COMPLETED TREATMENT	Examinations	Radiographs	Prophylaxis	Topical Fluoride Appl.	Fillings	Extractions	Dentures
TOTAL	2,415	1,749	666	1,876	4,000	4,570	2,780	156	3,000	900	101
Institutional	535	429	106	504	1,982	965	1,164	12	385	174	2
Community-Centered	1,404	870	534	1,125	1,480	3,348	1,248	141	2,558	644	93
County/State Hospitals	476	450	26	247	538	257	368	3	57	82	6

ENVIRONMENTAL PROTECTION AND HEALTH SERVICES DIVISION

SUMMARY

The Pollution Investigation and Enforcement Branch of the Environmental Protection and Health Services Division is responsible for preserving and improving the quality of the environment throughout the State. Monitoring and enforcement programs are the principle vehicles through which pollution control rules are implemented in the fields of air; water, including all non-potable coastal and fresh waters; and solid waste.

The branch is involved in the following activities:

1. Determination of violations and enforcement of pollution control rules.
2. Monitoring of ambient conditions with air and water quality standards as control measures.
3. Inspection of conditions and operating procedures at landfills and sewer treatment plants.
4. Investigation of complaints by the public and conducting special studies in critical areas of environmental concern.

TABLE 1
SUMMARY OF AIR QUALITY DATA
STATE OF HAWAII, 1987
(24-Hour Sampling)

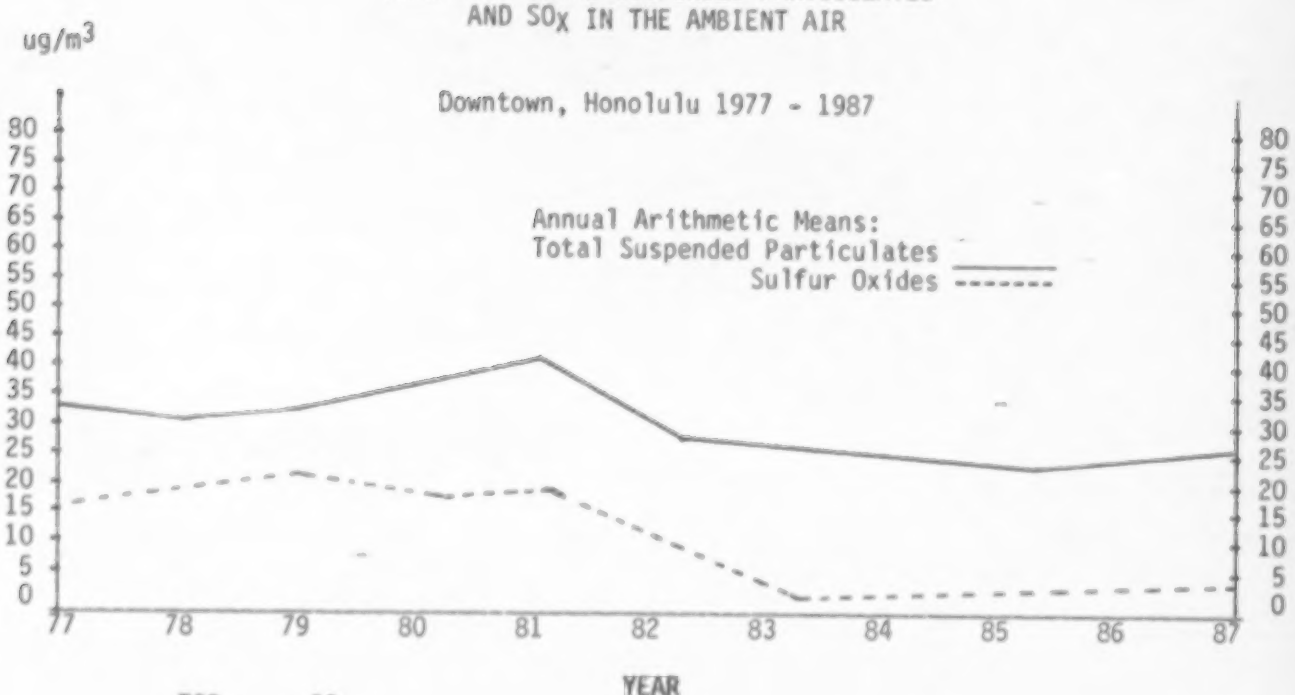
Sampling Stations	Micrograms Per Cubic Meter (ug/m^3)							
	Total Suspended Particulates				Sulfur Dioxide			
	No. of Samples	Annual Minimum	Annual Maximum	Arith. Average	No. of Samples	Annual Minimum	Annual Maximum	Arith. Average
Barbers Point - Oahu a/	50	10	40	22	58	<5	13	<5
Downtown, Honolulu - Oahu	58	14	59	26	58	<5	11	<5
Pearl City - Oahu	53	20	61	34	...	...	...	...
Liliha - Oahu	54	20	59	32	...	...	...	...
Waimanalo - Oahu	58	13	45	27	...	...	...	...
Kihei - Maui a/	41	11	107	28	38	<5	13	<5
Lahaina - Maui b/	10	8	19	15	...	...	...	...
Lihue - Kauai a/	53	12	38	20	...	...	...	...

a/ Particulate data from PM_{10} samplers (measuring inhalable particulates of less than 10 u).

b/ Site established in June, 1987. Sampling with PM_{10} sampler.

Source: Hawaii State Department of Health,
Pollution Investigation and Enforcement Branch, records

FIGURE 1
TRENDS OF TOTAL SUSPENDED PARTICULATES
AND SO_X IN THE AMBIENT AIR



Date	TSP ug/m3	SO_X ug/m3
1975	40	9
1976	34	23
1977	31	17
1978	29	18
1979	32	22
1980	37	18
1981	40	19
1982	29	11
1983	26	2.7
1984	25	2.3
1985	24	2.5
1986	25	2.6
1987	26	2.7

Sampling is conducted approximately 46 ft. above ground on the roof of the State Health Department building, 1250 Punchbowl Street, Honolulu, Hawaii.

Primary and secondary National Ambient air quality standards have been promulgated by the federal government. Primary standards are designed to prevent adverse effects on public health, while secondary standards are designed to prevent adverse effects on public welfare, including the values, and soiling and deterioration of materials. The standards for total suspended particulates (TSP) and sulfur oxides (SO_X) for the annual mean values are as follows:

	TSP(ug/m3)	SO_X(ug/m3)
Primary standard	75	80
Secondary standard	60	

TABLE 2
WATER QUALITY ON PUBLIC BEACHES: 1987

Beaches	Number of Samples	*Fecal Coliform Density Geometric Means (MPN/100 ml)
Oahu:		
Ala Moana Park (Ewa)	23	6.3
Ala Moana Park (Center)	12	2.2
Ala Moana Park (Diamond Head)	11	3.4
Elks Club Beach	11	2.1
Ewa Beach	11	2.8
Ft. DeRussy Beach	11	3.6
Gray's Beach	22	4.7
Hanauma Bay	12	17.7
Kahana Park Beach	12	23.9
Kahanamoku Beach	9	3.1
Kahanamoku Lagoon (Diamond Head)	22	15.4
Kailua Bay Outfall Shoreline	11	2.0
Kailua Beach Park	12	3.8
Kokokahi Pier	12	19.5
Kuhio Beach	11	35.5
Public Bath Beach	22	4.0
Tavern Beach	11	4.2
Sand Island Pt. #3	12	2.4
Kauai:		
Brennecke Beach	11	2.2
Hanalei Bay Landing	5	7.0
Poipu Beach	11	4.1
Hawaii: (Hilo)		
Exit of Ice Pond	12	19.4
Leileiwi Beach Park	12	89.7
Onekahakaha	12	15.2
Puhi Bay #3	12	22.7
Hawaii: (Kona)		
Hapuna Beach	11	3.1
Kahaluu Beach	11	3.2
Kealakekua Bay (off curio stand)	11	3.6
Kealakekua Bay (off canoe landing)	11	3.6
Magic Sands Beach	11	3.8
Puako Beach Lots (middle)	11	14.5
Puako Beach Lots (far end)	11	20.4
Spencer Beach Park	11	3.1
Maui:		
Hukilau Hotel Shoreline	3	4.0

*The geometric mean standard for fecal coliform density is 200 per 100 ml.

Source: Hawaii State Department of Health,
Pollution Investigation and Enforcement Branch, records

CONSTRUCTION GRANTS PROGRAM

The major function of the Wastewater Treatment Works Construction Grants Branch is to administer the Construction Grants Program for public wastewater treatment works pursuant to P.L. 92-500. Under the said program, 75 or 55 percent of the cost of constructing public treatment facilities are financed with federal funds. The State and Counties pay the remaining balance in a 40 and 60 percent ratio respectively. A net total of $18,467,894 of federal funds was awarded to wastewater treatment works projects in Hawaii during 1987. The major objectives of the construction of public wastewater treatment works are to abate the pollution of the State's waters and to eliminate public health hazards caused by inadequate sewage disposal systems.

The administering of the program includes review of grant applications, facilities plans, environmental impact statements, infiltration-inflow analysis, construction plans and specifications, payment requests, construction activities contracts and other technical documents. A project is broken down into three (3) steps which include Step 1 (development of a facilities plan), Step 2 (development of construction plans and specifictions) and Step 3 (construction).

The following statistics indicate federal grants awarded to various projects (Table 1) and projects which have been completed during the year 1987 (Table 2):

TABLE 1

GRANTS AWARDED FOR:	PROJECT STEP	FEDERAL GRANT AMOUNT
Nuuanu Valley Collector, Section 3	3	1,646,635
Sewer Tunnel Increment 4	3	9,269,972
Rice Camp Collector	3	553,100
Hilo Outfall Extension	3	2,805,000
Kaneohe Collector Sewer, Section 8	3	884,678
Kuakini Interceptor Sewer, Part C	3	3,251,250
205(j) Water Quality Management		140,070
205(g) Construction Grants Mgmt.		758,000
Grant Increase Awarded for:		
Kahala SPS Emergency Generator	3	67,500
Kaunakakai Treatment Facility Exp.	3	40,589
Sand Island STP, Unit 1	3	1,747,952
Hart Street SPS	3	45,893
Sewer Tunnel, Increment 3	3	385,767
Sewer Tunnel, Increment 4	3	259,332
Waimea Heights Collector Sewer	3	54,932
Ice Pond	3	42,923
Ahuimanu FM, Section 1	3	69,941
Ahuimanu FM, Section 2	3	120,757
Kahaluu SPS-FM	3	25,671
Honouliuli WWTP	3	194,867
Barbers Point Ocean Outfall	3	109,042
Pearl City FM, Section 1-A	3	31,881
Honouliuli WWTP, Increment 2	3	54,234
Wailuku-Kahului WRF	3	162,427
Paia SS Parts A&B	3	262,500

Grant Decrease Awarded for:

Waianae STP Modification-Design	2	10,116
Waianae Outfall	3	324,467
Lualualei SPS & FM	3	5,398
Nanakuli Collection Sewer, Section 1	3	124,459
Makaha Collector Sewer, Section 2	3	143,864
Mililani STP Effluent Discharge System	3	602,663
Papaikou-Paukaa Sewer System	3	99,679
Kailua Collector Sewer, Section 9	3	157,742
Waimanalo WWTP Emergency Generator	3	11,250
Makapuu IS, Section 2	3	65,914
Sewer Tunnel, Increment 2	3	5,966,336
Manoa-Kaimuki IRS	3	96,235
TOTAL		**18,467,894**

TABLE 2

COMPLETED PROJECTS	PROJECT STEP	FEDERAL GRANT AMOUNT
Ewa Beach CS, Section 1-ID	3	2,050,557
Papaikou-Paukaa STP	3	5,214,275
Koloa-Poipu Facility Plan	1	329,305
Kahaluu SPS & FM	3	2,412,898
Kailua Road, I.S.	3	875,986
Waimanalo Sewers, Section 4&5	3	938,759
Waialua-Haleiwa FP & EIS	1	461,370
Kapehu Camp Sewerage System	3	439,424
Central Lab	3	4,286,885
TOTAL		**17,009,459**

ENVIRONMENTAL PERMITS BRANCH

The Environmental Permits Branch administers permit and registration systems for air, water and solid waste programs by reviewing and evaluating applications and engineering reports and plans.

WASTEWATER PERMITS SECTION

Under federal and state laws, no person can discharge pollutants into a waterway from a point source unless a permit is obtained from the Department, which regulates what may be discharged and how much. Point sources include private and public wastewater treatment facilities, manufacturing plants, agriculture, wholesale, retail and other commercial establishments. Those obtaining permits comply with firm, legally enforceable requirements to meet applicable state laws. At present, the Department administers 87 National Pollutant Discharge Elimination System (NPDES) permits and 34 Zones of Mixing permits.

The Department currently administers a General Pretreatment Program for the U.S. Environmental Protection Agency (EPA). This program controls wastewater discharges into municipal sewer systems. This program was approved for the City and County of Honolulu during 1982.

Another program administered by the Department is the Underground Injection Control (UIC) Program that regulates discharges of pollutants to subsurface disposal systems. There are an estimated 500 injection wells in the State which transmit wastewater of some kind into groundwaters. The UIC Program will determine and control any threat these wastewaters will have on our present and future drinking water resources.

The Section 401 Water Quality Certification Program requires that under Section 401 of the Clean Water Act (CWA) of 1977, construction or operation of facilities which may result in any discharge into navigable waters shall provide the licensing or permitting agency a certification from the State that the discharge will comply with the applicable provisions of sections 301, 302, 303, 306 and 307 of the CWA and applicable State water quality standards. The Department has been designated the State certifying agency.

TABLE I

Permits Issued or Reviewed (1987 Calendar Year)

NPDES	2
Zones of Mixing	3
Underground Injection Control	46
Section 401 Water Quality Certification	6

AIR POLLUTION CONTROL AND SOLID WASTE MANAGEMENT PERMITS SECTION

Air and solid waste permits are also administered by the Environmental Permits Branch. Air permits consisting of an Authority to Construct and a Permit to Operate are issued to stationary sources of air pollution. Its primary objective is to safeguard the ambient air quality of the State. Under an agreement between the U.S. Environmental Protection Agency (EPA) and the Department of Health, the Branch administers the source review provisions of the Federal Prevention of Significant Deterioration (PSD) rules and implements certain categories of the Standards of Performance for New Stationary Sources (NSPS) and the National Emission Standards for Hazardous Air Pollutants (NESHAPS). Since the processing of PSD applications is quite extensive and time consuming, due to the complexity and subjective nature of the review process, an engineering consultant was contracted through EPA to assist with the review of certain PSD applications.

In May 1987, public hearings were conducted on the proposed geothermal and coal burning rules to Administrative Rules, Chapters 11-59 and 11-60, but further action had to be curtailed as efforts were directed to the higher priority permitting activities. As an interim measure, staff overtime was approved to meet this responsibility.

As the air permits program has become highly complex and the demand for services ever increasing, additional staff will be requested from the 1988 Legislature to meet the program responsibilities of today and the future.

The solid waste permits program continued with the management of solid waste disposal facilities through the permit system. Permits are issued to sanitary landfills and processing facilities such as reclamation plants, transfer stations, convenience centers and incinerators. Act 236-87, Relating to Used Oil Recycling and Disposal, was added to the Hawaii Revised Statutes, Chapter 342, and provided the authority to adopt, implement, and enforce rules pursuant to the handling and disposal of used oil. Working with the Used Oil Advisory Committee, revisions to the Act will be considered and development of rules initiated.

TABLE 2

Air Pollution Control (1987 Calendar Year)	
Authority to Construct Permits Issued	57
Permits to Operate Issued	94
Solid Waste Management (1987 Calendar Year)	
Permits Issued	15

SUMMARY - CALENDAR 1987

The principal activity of the Sanitation Branch is to maintain a sanitary and healthful environment for the people in Hawaii by providing inspectional, educational and enforcement activities. Sanitarians investigate and abate health nuisances and minimize insanitary conditions which may be a threat to health. Inspections are made of food and food service establishments; milk plants, frozen dessert manufacturing plants; dairy farms; dwelling units, hotels and other multi-dwelling units; public swimming pools; barber shops; mortuaries and cemeteries; laundries; private sewage disposal systems and various other premises for certificates of approval, clearances for licensure or for permit issuance; or for compliance with public health standards and requirements.

The Food Products Section in the Sanitation Branch of the Environmental Protection and Health Services Division protects the health of the consumer by ensuring that foods are wholesome; over-the-counter drugs and therapeutic devices are safe and effective; cosmetics are harmless; and that all these products are properly labeled, packaged, and advertised. The section is also empowered to require that certain hazardous household products carry adequate label warnings for the safety of children and are packaged with safety closures.

The Food Products Section administers the Hawaii Food, Drug and Cosmetics Act: the Hawaii Poison Prevention Packaging Act; and the regulations of food and food products, shellfish, milk, frozen desserts, and poisons. The primary responsibilities of the section include: inspecting food, drug and cosmetic establishments, investigating consumer complaints; and collecting various specimens for examination to determine conformity with purity, labeling, and identity standards.

Inspections and investigations conducted by the section resulted in the following regulatory actions: recall and destruction of various products including Lactaid brand milk contaminated with antibiotics and raw agricultural commodities contaminated with pesticide residues; distributors who were mislabeling their food products as being made in Hawaii were ordered to correct the labels to reflect the fact that the products were made on the mainland; and a major local distributor of dietary food supplements was ordered to cease and desist from falsely promoting its products as a cure for numerous illnesses.

TABLE 1

AVERAGE DAILY PRODUCTION OF PASTEURIZED MILK BY ISLAND
STATE OF HAWAII, 1987

ISLAND	AVERAGE DAILY PRODUCTION (Pounds)
OAHU	316,790
HAWAII	48,401
MAUI*	--
KAUAI	49,426

*Includes the islands of Maui, Molokai, and Lanai

No retail raw milk is sold for human consumption in the State.

2.5 pounds = 1 quart

TABLE 2

DAIRIES AND MILK PLANTS AS OF DECEMBER 31, 1987
BY TYPE AND ISLAND

TYPE	TOTAL	ISLAND			
		OAHU	HAWAII	MAUI*	KAUAI
Pasteurization Plants	6	2	2	4	1
Milk Plant Producers	22	15	5	1	1

*Includes the islands of Maui, Molokai, and Lanai

TABLE 3

DISTRIBUTION OF SANITARY INSPECTIONS BY TYPE AND ISLAND
STATE OF HAWAII, 1987

TYPE OF INSPECTION	TOTAL	ISLAND			
		OAHU	HAWAII	KAUAI	MAUI
TOTAL INSPECTIONS	133645	106303	11309	6604	9429
Dwellings	5357	3091	98	1598	570
Apartments	1276	1075	65	0	136
Hotels	1203	942	42	56	163
Lodging Houses	93	84	6	0	3
Tenements	182	180	0	0	2
Boarding Houses	27	18	0	1	8
Adult Family Boarding Homes	99	94	5	0	0
Care Homes	658	494	94	29	41
Day Care Centers	1297	1172	52	18	55
Kindergartens, Schools	1385	1085	106	62	132
Institutions, Hospitals	477	227	13	10	227
Funeral Establishments, Cemeteries	66	45	3	4	14
Liquor Dispensers	7042	6042	318	115	567
Grocery Stores	7417	6476	409	126	406
Markets	2636	2318	79	11	228
Bottling Plants, Canneries	127	64	23	2	38
Food Manufacturers	9898	8262	552	218	866
Restaurants, Cafeterias, Drive-Ins, Lunch Counters, etc.	29871	26554	1223	427	1667
Food Sales	5116	4067	550	195	304

TABLE 3 (Continued)

ACTIVITY	TOTAL	OAHU	HAWAII	KAUAI	MAUI*
Lunch Wagons	2844	2654	85	18	87
Food Peddlers	1906	1883	16	1	6
Dairy Farmers, Milk Plants	2334	1983	222	56	73
Frozen Dessert Plants	187	104	4	6	73
Dispensing Freezers, Shave Ice Outlets	1093	660	187	116	122
Vending Machine Operations	16	9	0	5	2
Warehouses	2018	1777	131	12	98
Hog Ranches, Poultry Farms, Feed Lots	491	388	14	26	63
Slaughterhouses	22	10	2	5	5
Vegetable Gardens	48	10	2	29	7
Flower Gardens	36	29	7	0	0
Barber Shops, Beauty Parlors	591	528	0	14	49
Massage Parlors, Reducing Salons	279	207	39	14	19
Tattoo Shops	68	66	0	0	2
Clothes Cleaners, Laundries	187	165	12	5	5
Secondhand Dealers	1	0	0	0	1
Mattress Makers	6	5	1	0	0
Amusement Places, Parks, Playgrounds	639	222	48	20	349
Recreational Trailer Camps	16	15	0	1	0
Industrial Plants, Small Shops, General Merchandise	1556	613	284	109	550
Swimming Pools	1203	991	104	60	48
Household Sewage Disposal Systems, House Drain, Sewer	19007	13801	3185	860	1161
Subdivisions	586	151	11	293	131
Unclassified	24284	17734	3317	2082	1151

*Includes the islands of Maui, Molokai and Lanai

TABLE 4

SUMMARY OF ACTIVITIES BY SANITARIAN

STATE OF HAWAII, 1987

ACTIVITY	TOTAL	ISLAND			
		OAHU	HAWAII	KAUAI	MAUI*
A. Inspection, Investigation, Enforcement					
1. Insanitary Practices & Hazardous Conditions Abated					
Structures Repaired	16	9	2	5	0
Plumbing, Fixtures Repaired	17	5	3	5	4
Water Supply Violations Corrected	13	4	5	0	4
Sewage Disposal Violations Corrected	872	78	320	15	459
Ventilation Corrected	38	33	5	0	0
Floor, Walls, Ceiling Cleaned	24	18	0	5	1
Streets, Alleyways, Yards Cleaned of Rubbish, etc.	65	58	7	0	0
Garbage Containers, Conveyances Corrected	98	94	3	0	1
Domestic Animals, Poultry Nuisances Abated	88	85	2	1	0
Vermin, Rodent, Birds, Animal Nuisances Abated	43	36	1	5	1
Food Equipment Replaced, Repaired	14	8	0	0	6
Food Equipment, Utensils Cleaned	6	6	0	0	0
Food Equipment, Utensils Sanitized	5	5	0	0	0
Food Equipment, Utensils Properly Stored, Handled	11	11	0	0	0
Food Storage, Display, Handling Corrected	51	49	0	1	1
Insanitary Personnel Practices Abated	6	5	1	0	0
Food Handlers' Certificate Obtained	0	0	0	0	0

TABLE 4 (Continued)

ACTIVITY	TOTAL	OAHU	HAWAII	KAUAI	MAUI*
Toilet Room and Facilities Cleaned, Repaired	17	14	3	0	0
Barber, Beauty Shop Instruments Cleaned, Sanitized	17	11	2	0	4
Swimming Pool Disinfected; pH Maintained	21	15	5	1	0
Depth Marking Violations Corrected	10	8	2	0	0
Swimming Pool Safety Violations Corrected	24	14	9	1	0
Bacteriological Standards Met	10	5	5	0	0
Abnormal Milk Excluded	0	0	0	0	0
Milking Procedures Corrected	0	0	0	0	0
Thermometric Controls in Compliance	11	11	0	0	0
Pressure Differential of Pasteurizer Met	18	18	0	0	0
Holding Time of Pasteurizer Met	7	6	1	0	0
Required Data on Recorder-Controller Charts Furnished	2	2	0	0	0
Miscellaneous Nuisances Abated	115	94	5	10	6
Total Corrections Made	2883	584	1763	49	487
2. Field Test for Cl, pH, Alk., Sed., Abnormal Milk	3717	506	2462	468	281
3. Samples Collected: Milk, Food, Water, Swabs, etc.	2351	509	285	1193	364
4. Complaints Investigated	1937	1612	119	139	67
Warning Given	1114	661	417	32	4
Verbal Orders Given	1756	724	446	83	503
Verbal Orders Finished	2976	642	1771	76	487
Total Verbal Orders Unfinished	4823	4449	10	117	247

TABLE 4 (Continued)

ACTIVITY	TOTAL	OAHU	HAWAII	KAUAI	MAUI*
Written Orders Given	741	723	14	3	1
Written Orders Finished	124	49	72	2	1
Total Written Orders Unfinished	315	181	23	12	99
5. Certificates Issued	473	316	3	32	122
6. Permits Issued	281	245	0	23	13
7. Permits Degraded	1	1	0	0	0
8. Permits Suspended, Revoked	0	0	0	0	0
9. Prosecutions	0	0	0	0	0
B. Education					
1. Food, Milk Handlers' Class	2	0	1	1	0
2. Workshops, Meetings	195	44	89	43	19
3. In-Service Training	57	21	27	9	0
Technical Review and Consultation Provided	7840	1845	1391	4222	382

*Includes the islands of Maui, Molokai and Lanai

TABLE 5

DAILY SUMMARY OF FOOD SERVICE AND FOOD ESTABLISHMENTS

STATE OF HAWAII, 1987

ACTIVITY	TOTAL	ISLAND			
		OAHU	HAWAII	KAUAI	MAUI*
INSPECTION, INVESTIGATION, ENFORCEMENT					
A. Insanitary Practices and Hazardous Conditions Abated					
1. Food Source, Wholesome	152	84	30	4	34
2. Food—Original Container, Properly Labeled	267	123	78	4	62
3. Potentially Hazardous Food Meets Temperature Requirements	323	219	51	2	51
4. Facilities to Maintain Product Temperature	89	37	9	17	26
5. Thermometers Provided and Conspicuous	427	279	90	2	56
6. Potentially Hazardous Food Properly Thawed	192	122	31	2	37
7. Unwrapped and Potentially Hazardous Food Not Re-served	30	18	1	0	11
8. Food Protection—Storage, Preparation. Display, Service, Transportation	956	640	120	15	181
9. Handling of Food (Ice) Minimized	105	62	14	0	29
10. Food (Ice) Dispensing Utensils Properly Stored	294	132	71	4	87
11. Personnel Infections, Communicable Disease Restricted; T.B. Clearance Card	54	31	11	6	6
12. Hands Washed and Clean, Good Hygienic Practice	265	186	45	3	31
13. Clean Clothes, Hair Restraints	413	314	39	2	58
14. Food Contact Surfaces: Designed, Constructed, Maintained, Installed	407	267	54	4	82
15. Non-Food Contact Surfaces: Designed, Constructed, Maintained, Installed	469	233	105	3	128
16. Dishwashing Facilities: Designed, Constructed, Maintained, Installed	178	116	26	4	32
17. Accurate Thermometers	7	2	3	0	2
18. Single Service Articles, Storage, Dispensing	66	49	12	2	3

TABLE 5 (Continued)

ACTIVITY	TOTAL	OAHU	HAWAII	KAUAI	MAUI*
19. No Re-Use of Single-Service Articles	12	6	5	1	0
20. Pre-flushed, Scraped, Soaked	128	62	31	8	27
21. Wash, Rinse Water: Clean, Proper Temperature	92	54	13	0	25
22. Sanitization Rinse: Clean, Temperature, Concentration	561	352	55	8	146
23. Wiping Cloths: Clean, Use Restricted	418	194	73	2	149
24. Food-Contact Surfaces of Equipment and Utensils Clean	625	462	57	4	102
25. Non-Food Contact Surfaces of Equipment & Utensils Clean	555	447	61	3	44
26. Storage, Handling of Clean Equipment-Utensils	112	83	20	4	5
27. Water Source, Safe: Hot & Cold Under Pressure	168	134	12	7	15
28. Sewage and Waste Water Disposal	58	39	6	2	11
29. Plumbing—Installed, Maintained	259	164	27	6	62
30. Plumbing—Cross-Connection, Back Siphonage, Backflow	102	65	23	4	10
31. Toilet & Handwashing Facilities—Number, Convenient, Accessible, Installed	242	151	20	14	57
32. Toilet Rooms, Self-Closing Doors, Good Repair, Clean Hand Cleanser, Sanitary Hand-Drying, Proper Waste Receptacles	633	452	78	11	92
33. Garbage & Refuse Disposal Receptacles Covered: Adequate No., Insect/Rodent Proof, Clean	150	105	13	2	30
34. Outside Storage Area, Enclosures Properly Constructed, Clean: Incineration Controlled	43	30	2	0	11
35. Presence of Insects, Rodents—Outer Openings Protected, Turtles, Other Animals, Proper Insecticides	772	529	130	2	111
36. Floors: Constructed, Drained, Clean, Good Repair, Covering Installation, Dustless Cleaning Method	581	385	70	7	119
37. Walls, Ceiling, Attached Equipment: Constructed, Good Repair, Clean, Surfaces, Dustless Cleaning Methods	632	428	74	11	119
38. Lighting Provided as Required	201	75	20	6	100
39. Rooms and Equipment—Vented as Required	147	98	15	2	32
40. Dressing Rooms—Rooms Clean, Lockers Provided, Facilities Clean	115	88	13	0	14
41. Toxic Items Properly Stored, Labeled, Used	678	434	144	6	94

TABLE 5 (Continued)

ACTIVITY	TOTAL	OAHU	HAWAII	KAUAI	MAUI*
42. Premises: Maintained, Free of Litter, Unnecessary Articles, Cleaning/Maintenance Equipment Properly Stored, Authorized Personnel	280	208	34	9	29
43. Complete Separation from Living/Sleeping Quarters, Laundry	11	6	3	0	2
44. Clean, Soiled Linen Properly Stored	32	16	9	1	6
Total Corrections Made	13414	7625	1788	194	3807
B. Field Test for Cl, pH, Alk, etc.	1777	683	227	47	820
C. Samples Collected: Food, Water Swabs, etc.	373	245	61	38	29
D. Complaints Investigated	881	698	76	46	61
E. Orders and Warnings					
Warnings Given	3835	2319	886	26	604
Verbal Orders Given	12824	7557	2033	149	3085
Verbal Orders Finished	11574	5823	1756	188	3807
Total Verbal Orders Unfinished	56639	47861	4824	658	3296
Written Orders Given	38	35	3	0	0
Written Orders Finished	42	40	2	0	0
Total Written Orders Unfinished	246	226	3	4	13
F. Certificates Issued	5047	4346	107	1	593
G. Permits Issued	1569	1178	219	54	118
H. Permits Suspended, Revoked	30	25	1	4	0
I. Prosecutions	0	0	0	0	0
EDUCATION					
A. Food Handlers' Class	55	20	32	2	1
B. Workshops, Meetings	137	66	51	14	6
C. In-Service Training	122	75	35	9	3
TECHNICAL REVIEW AND CONSULTATION PROVIDED	3196	1324	892	678	302

*Includes the islands of Maui, Molokai and Lanai

TABLE 6

FOOD SAMPLES EXAMINED FOR PRODUCT STANDARDS AND COMPLIANCE
STATE OF HAWAII, 1987

Type of Samples Collected	Number Collected	Violative Samples
Samples for Evidence Documentation a/	100	13
Product Standard Samples b/	80	5
Water Samples from Aquaculture Growing Areas	88	19
Seafood/Imported Shellfish	8	0

a/ Samples to document a violation or suspected violation which may have been found during an inspection or investigation.

b/ Samples to determine compliance with labeling and product standard requirements.

TABLE 7

FOOD PRODUCTS EXAMINED FOR PESTICIDE RESIDUES
STATE OF HAWAII, 1987

Type of Samples Collected	Number Collected	Violative Samples a/
Food Products b/	146	9
Milk and Milk Products c/	140	0

a/ The number of violative samples may include retested samples.

b/ Includes raw agricultural commodities and processed foods, other than milk and milk products.

c/ Includes raw or processed milk.

TABLE 8

SAMPLES AND ANALYSES OF MILK AND MILK PRODUCTS
STATE OF HAWAII, 1987

Product	No. of Samples for Product Standards a/	Violative Samples b/
Raw Milk	302	15
Processed Milk c/	268	13
Others d/	571	55

a/ Analyses to determine compliance with various milk standards including microbiological, inhibitory substance, somatic cell, phosphatase, milkfat, solids-not-fat, and temperature standards.

b/ The number of violative samples includes retested samples.

c/ Includes homogenized milk, 2% lowfat milk and skim milk.

d/ Other milk products include recombined milk, imitation milk, yogurt, sour cream, milk containers, etc.

TABLE 9

SAMPLES AND ANALYSES OF FROZEN DESSERTS
STATE OF HAWAII, 1987

Type of Frozen Dessert	Number of Samples	Violative Samples
Ice Milk	941	288
Ice Cream	58	15
Sherbet	14	0
Frozen Yogurt	257	48
Others (non-dairy)	61	18
Total	1,331	369

Samples tested for compliance with various frozen dessert standards including milkfat, solids-not-fat and microbial standards.

TABLE 10

FOOD AND OVER-THE-COUNTER DRUGS CONDEMNED AND DESTROYED BY COUNTY
STATE OF HAWAII, 1987

County	Foods (Weight in Pounds)	Retail Value	Over-The-Counter Drugs & Medical Devices (Weight in Pounds)	Retail Value
Honolulu	407,489	$ 521,104	--	--
Hawaii	140,436	49,062	--	--
Maui	12,748	12,029	--	--
Kauai	39,143	25,983	--	--
Total	599,816	$ 608,178	--	--

TABLE 11

SELECTED ACTIVITIES OF THE FOOD PRODUCTS SECTION
STATE OF HAWAII, 1987

Activities	Number
Agency Assistance	17
Complaint Investigations	248
Label Reviews	1,346
Frozen Dessert Permits Issued	298
Poison Permits Issued (new) a/	19
Permits Issued for Prophylactic Devices	1
Number of Consultations	1,334
Workshops and Speaking Engagements	7

a/ The number of poison permits issued does not include renewed poison permits.

DRINKING WATER PROGRAM

The Drinking Water Program conducts activities as required by the Safe Drinking Water Act for public water systems. This includes such activities as monitoring, surveillance, technical assistance, and enforcement of water systems. Table 1 provides a brief summary of the public water systems in the State of Hawaii identified by island which they serve and their owner classification. During the year, the Program was also heavily involved in a number of special activities. Primary among these activities were efforts to meet significant increases in monitoring and other requirements under amendments to the Safe Drinking Water Act.

Another major effort for 1987 was the statewide surveillance for the chemical dichloropropane (DCP). This chemical was first detected in the Mililani Water System after the activated carbon filtration system. Sampling identified the fact that the treatment system was experiencing "breakthrough" of the contaminant, and was also used to confirm the fact that replenishment of the carbon filtering material served to resolve the problem. Mililani appears to have been the only location where DCP occurred in measurable amounts.

Finally, the Program was involved in a limited surveillance for the contaminant radon. Radon, which is a radioactive product of the degradation of uranium and/or radium, has been linked to lung cancer when inhaled. It has been found to be in very high levels in areas of the mainland. The surveillance in Hawaii determined that radon occurs at relatively low levels in water in the State. Most of the values found were equal to the national average of between 200 to 600 picocuries per liter of water (pCi/L), however some values from the Kilohana area of Kauai registered approximately 1,000 pCi/L. The U.S. Environmental Protection Agency has set no enforceable action level for radon in water.

TABLE 1

PUBLIC WATER SYSTEMS*
STATE OF HAWAII, 1987

SYSTEMS	Total	Island			
		Hawaii	Maui	Oahu	Kauai
Municipal Systems	55	21	11	8	15
Private	66	18	18	22	9
State Systems	13	1	3	5	4
Federal Systems	27	4	4	18	2
Total	161	44	36	53	30
Sanitary Surveys**	36	11	12	7	6

* A Public Water System is defined as a system that has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least sixty days out of the year.

** A Sanitary Survey is an on-site inspection of a public water system by Department personnel using standard procedures to determine the effectiveness of the operation and maintenance of the system in providing safe water to the consuming public.

SUMMARY

The objective of the Vector Control Branch is to prevent outbreaks of vector-borne diseases and serious vector nuisances. This is accomplished through program activities that are designed to control existing vector populations and prevent encroachment of new vector species from abroad.

Table 1 presents the principal activities of the Branch. There was an overall decrease in the number of area vector abatement activities in 1987 compared to the previous year.

Table 2 presents the small mammal retrieval data by island and area. All totals were generally higher than the previous year, especially the number of mammals retrieved.

Table 3 presents a summary of the zoonosis laboratory activities and findings. Serology testing was generally higher overall in 1987 than the previous year. The number of ectoparasites (fleas, mites, & lice) recovered and the number of sera tested for murine typhus all increased over the previous year.

Table 4 presents a summary of the applied vector research projects. These projects are conducted to provide the program with a better basis for controlling vectors.

TABLE 1

PRINCIPAL ACTIVITIES OF THE VECTOR CONTROL BRANCH ON THE

ISLANDS OF OAHU, HAWAII, MAUI AND KAUAI

STATE OF HAWAII, 1987

Activity	Total	Island			
		Oahu	Hawaii	Maui	Kauai
Vector Surveillance					
Mosquitoes (Lt-Trap Days)	37,730	20,022	9,421	2,812	5,475
Small Mammals (Trap-Days)	232,033	9,346	175,765	43,214	3,708
Flies (Trap-Days)	1,469	1,040	429	-	-
Yellowjackets (Trap-Days)	1,095	-	-	-	1,095
Others (Trap-Days)	-	-	-	-	-
Domestic Vector Abatement					
No. Premises Inspected for Survey	15,039	14	11,749	1,969	1,307
No. Additional Premises Inspected During Complaints	5,190	2,824	1,454	584	328
Enforcement					
Demolition Permits Investigated	739	673	30	34	2
Referrals Investigated	88	13	26	-	49
Complaints Investigated	3,738	1,774	1,290	564	110
Mosquitoes	458	300	64	76	18
Rodents	1,958	886	758	270	44
Flies	232	123	64	20	25
Fleas	204	116	30	52	6
Mites/Ticks	118	77	17	20	4
Cockroaches	81	32	9	36	4
Wasps/Bees	282	4	240	37	1
Others	370	201	108	53	8
Area Vector Abatement					
Storm Drains, Pits Trtd. (No.)	11,614	1,737	976	8,772	129
Mosq. Brdg. Areas Insp. (Ac.)*	41,371.6	20,380.4	1,694.8	7,283.0	12,013.4
Mosq. Brdg. Areas Trtd. (Ac.)	2,717.0	465.0	33.6	1,053.5	1,164.9
Mosq. Adulticiding (Ac.)	387.3	0.5	1.3	379.5	6.0
Mosq. Brdg. Containers Trtd. (No.)	43,445	1,375	37,029	3,321	1,720
Mosq. Bio-Control (No. Fish Stocked)	122,725	64,500	1,075	39,500	17,650
Rodent Area Treated (Ac.)	1,604.8	13.0	657.3	934.5	-
Fly Control (Ac.)	7.7	-	0.5	6.2	1.0
Yellowjacket Nests Destroyed (No.)	178	-	171	6	1
Cordon Sanitation					
Airport Inspection (Freq.)	1,386	120	852	325	89
Harbor/Pier Inspection (Freq.)	1,755	336	949	460	10
Rodent Bait Stations (No.)	353	185	115	53	-
Mosq. Brdg. Containers Trtd. (No.)	367	316	-	29	22
Education and Consultation					
People Reached (No.)	6,917	3,902	1,005	715	1,295
Vector Identification (No.)	942	851	81	5	5
Source Reduction (No.)	1,676	458	71	552	595
Applied Vector Research					
On-Going Projects	8	8	...	...	...

* Ac. = Acre

TABLE 2

TOTAL SMALL MAMMAL RETRIEVALS BY ISLAND, ACTIVITY, AND SPECIES

STATE OF HAWAII, 1987

Island	Activity	Trap-Days*	Total Small Mammals Retrieved	Species								
				Rattus					Mus musculus		Herpestes auropunctatus	
				Total								
				Number	Percent	exulans	norvegicus	rattus	Number	Percent	Number	Percent
Hawaii	Field	81,159	8,449	4,275	506	1,044	606	2,625	3,138	37.1	1,036	12.3
	Cordon	96,316	4,166	447	10.7	230	3	214	2,260	54.2	1,459	35.0
	Total	177,475	12,615	4,722	37.4	1,274	609	2,839	5,398	42.8	2,495	198
Oahu	Field	7,625	932	336	36.0	-	14	322	498	53.4	158	17.0
	Cordon	1,721	53	51	96.2	-	46	5	2	3.8	-	-
	Total	9,346	985	387	39.3	-	60	327	500	50.8	158	16.0
Maui	Field	13,633	692	602	87.0	157	-	445	75	10.8	15	2.2
	Cordon	30,178	83	41	49.4	35	-	6	42	50.6	-	-
	Total	43,811	775	643	83.0	192	-	451	117	15.1	15	1.9
Kauai	Field	3,708	345	211	61.2	92	20	99	134	38.8	-	-
	Cordon	-	-	-	-	-	-	-	-	-	-	-
	Total	3,708	345	211	61.2	92	20	99	134	38.8	-	-
Total	Field	106,125	10,418	5,424	52.1	1,293	640	3,491	3,845	36.9	1,209	11.6
	Cordon	128,215	4,302	539	12.5	265	49	225	2,304	53.6	1,459	33.9
	Total	234,340	14,720	5,963	40.5	1,558	689	3,716	6,149	41.8	2,668	18.1

* Trap-Days = No. Traps Set X No. of Days Trapped

TABLE 3

SUMMARY OF ZOONOSIS LABORATORY ACTIVITIES AND FINDINGS BY AREA

STATE OF HAWAII, 1987

Activity	Total	Island				
		Oahu	East Hawaii	West Hawaii	Maui	Kauai
No. Macroscopic Examinations	6,970	869	263	5,451	70	317
Ectoparasites Recovered						
No. Fleas	433	385	-	14	1	33
No. Mites	1,730	540	-	48	183	959
No. Lice	270	52	-	-	105	113
Serology						
No. Sera for Branch Tests	6,058	365	2,488	2,045	641	519
Plague[a/]						
No. Sera Tested	840	19	268	169	70	314
No. Sera Positive (%)	-	-	-	-	-	-
Murine Typhus[b/]						
No. Sera Tested	5,218	346	2,220	1,876	571	205
No. Sera Positive (%)	308 (5.9)	43 (12.4)	-	23 (1.2)	233 (40.8)	9 (4.4)
Leptospirosis[c/]						
No. Cultures Prepared	732	400	...	...	66	266
No. Cultures Positive (%)	106 (14.5)	68 (17.0)	...	...	-	38 (14.3)

a/ Only animals retrieved from ports of entry tested for plague.
b/ Only rat sera tested by IFA technique.
c/ Oahu, Maui, and Kauai.

TABLE 4

APPLIED VECTOR RESEARCH/TRAINING PROJECTS

STATE OF HAWAII, 1987

Pest Common Name (Scientific Name)	Project Title	Status/Purpose
Long-Legged Ant (*Anoplolepis longipes*)	Distribution, Abundance, and Control of the Long-Legged Ant	Ongoing. Ecological studies of individual colonies in the field are continuing to determine the reason(s) for the ineffectiveness of normal ant control methods (baits and insecticides).
Mouse (*Mus musculus*)	Mice Ecology Studies to Aid in Predicting Major Mice Population Explosions that Periodically Occur on Hawaii, Maui, and Oahu	Ongoing. Preliminary studies indicate that population increases combined with an increased average weight of mice above 10 grams may be indicative of mice population explosions. An early warning of an impending mice population outbreak with this method prevented a serious mice infestation on the Island of Hawaii this year.
Mongoose (*Herpestes auropunctatus*)	Development of a Contingency Plan to Eradicate Mongooses During Any Future Rabies Outbreak	Ongoing. Studies are continuing on population densities, trapping methods, and poisoning methods.
Dog Dung Fly (*Musca sorbens*)	Development of an Integrated Fly Control Program to Abate a Serious Dog Fly Problem at Clover Leaf Dairy at North Kohala	Ongoing. Studies to develop a fly control method for the dog dung fly breeding in dairy cow dung pats without the use of pesticides.

TABLE 4 (Continued)

Training	Project Title	Status/Purpose
Certification of Restricted Use Pesticide Applicators for Public Health	Develop and Write Two Study Manuals for Pesticide Certification Course	Completed. Part I. Safe Pesticide Use (23 pages). Part II. Identification, Biology, and Control of Public Health Pests (64 pages).
Certification of Restricted Use Pesticide Applicators for Public Health	Prepare Examination for Pesticide Courses	Completed. Part I. 100 Questions on Pesticide Use. Part II. 100 Questions on Public Health Vectors.
Certification of Restricted Use Pesticide Applicators for Public Health	Prepare Material for Oral and Visual Presentation of Certification Course	Completed. Part I. Course on Pesticide Use. Part II. Course on Public Health Pests.
Certification of Restricted Use Pesticide Applicators for Public Health	Conduct Six-Day Certification Course	Completed. Part I and Part II. Course given to 111 applicants on the Islands of Oahu, Maui, Kauai, and Hawaii.

SUMMARY

The Litter Control Office was established within the Department of Health pursuant to Act 2, First Special Session of the 1977 Legislature. The purpose of the office is to promote, coordinate and implement litter control in the State through public education and awareness, streamlined enforcement, continuing voluntary anti-litter campaigns, and requirements for litter receptacles.

"Litter" means all rubbish, refuse, waste material, garbage, trash, offal, or any debris of whatever kind or description, whether or not it is of value, and includes improperly discarded paper, metal, plastic, glass, or solid waste.

The results produced in the 1987 Community Work Day Program are listed in Table 1. Statewide Community Work Days were held on 5 days in 1987 and local community work day projects were held throughout the year.

Table 2 shows the number of participating schools and individuals and the amount of aluminum cans and newspapers and other materials collected in the 1987 Statewide Recycling Campaign. The campaign was conducted during the month of February on the islands of Oahu, Maui, Kauai, Hawaii and Molokai. The Governor's Advisory Committee on Litter Control sponsored this campaign with the Litter Control Office.

Table 3 shows the number of litter control materials that were made available to community organizations, youth groups and the general public. Car litter bags and the various types of educational and promotional materials are available to the public, upon request, for litter control projects and promotional purposes.

TABLE 1

1987 COMMUNITY WORK DAY PROGRAM
STATE OF HAWAII

No. Bags of Litter Picked Up	25,445
No. of Participating Groups	1,276
No. of Participants	15,643
Total Dollars Collected by Neighborhood Committees	$4,321

TABLE 2

STATE RECYCLING CAMPAIGN
STATE OF HAWAII, FEBRUARY 1987

No. of Participating Schools	Approximate No. of Participating Individuals	No. of Pounds of Aluminum Cans Collected	No. of Pounds of Other Materials Collected	Total Dollars Earned
95	117,000	215,885	637,081	$68,062

TABLE 3

LITTER CONTROL MATERIALS DISTRIBUTED
STATE OF HAWAII, 1987

Type of Material	Total Amounts Distributed
Car Litter Bags	55,000
Bumper Stickers and Decals	7,000
Printed Materials a/	65,000
Other Promotional Materials b/	9,000

a/ Flyers, posters, brochures, and notices.
b/ Magnets, bookcovers, calendars, pens, keytags, and weepuls.

HAZARDOUS WASTE PROGRAM

The role of the State's Hazardous Waste Program is to regulate all aspects of the management of a hazardous waste from the time it is generated to the time it is finally disposed of properly. Persons managing solid wastes are required to identify the solid waste deemed to be "hazardous wastes" by EPA, and then to manage that hazardous waste at a treatment, storage or disposal (TSD) facility in accordance with regulatory requirements.

The Department presently administers its Hazardous Waste Program under the direction and guidance of the U.S. EPA pursuant to Cooperative Agreements under Section 3011 and Subtitle I of the Resource Conservation and Recovery Act (RCRA) as amended. Under these agreements, the State assumed responsibility for conducting compliance inspections and monitoring of generators, transporters and TSD facilities for hazardous waste and owners of underground storage tanks. The State is also delegated the responsibility for improving the Community's overall awareness and understanding of hazardous waste problems and procedures, as well as respond to specific questions raised by concerned individuals.

Summary of Program Activities
1987

Inspections of TSDF's	6
Inspections of Generators	5
Inspections of Transporters	1
Complaints Investigated	7
Public Awareness Activities (speeches, seminars, workshops, etc.)	19

MEDICAL HEALTH SERVICES DIVISION

SCREENING RESULTS

Chronic Disease Branch

Statistical Report - 1987

Table 1 shows the total number of persons screened and the new diabetics found by age and sex. The overall number screened was less than last fiscal year, probably because of the cessation of screening by the Hawaii Diabetes Association, with whom we usually co-screen. The rate of new diabetics found was higher (6.31 per thousand vs. 5.4 last year). However, this is still less than the preceding year's rate of 7.26.

Table 2 shows the rates of new diabetics by race and sex. As in prior years, Hawaiian/Part Hawaiian showed the highest rate with 10.37 per thousand. Japanese were second highest with a rate of 6.96 per thousand.

Table 3 shows the rates by island. Hawaii leads by almost three times the rate for Oahu (12.73 and 4.69, respectively).

Table 4 shows figures for blood pressure screening, which is usually performed at the site of the diabetes screenings. The overall number of abnormals (140/90) or above is almost the same as last year, and in accord with national findings.

Table 5 shows figures for cholesterol screening, which was initiated November, 1986. Screening is done with the Reflotron machines, on capillary blood, and is usually performed along with diabetes screening. These results will act as a baseline for future years, to evaluate effectiveness of stepped-up community education and individual counseling, and will, hopefully, raise the number of people who know their cholesterol level.

Table 6 shows breakdown of abnormal cholesterol levels by race, corrected for screened population. Although the total number is small it gives some indication of ethnic differences in cholesterol levels.

TABLE 1
DEPARTMENT OF HEALTH
CHRONIC DISEASE BRANCH

DIABETES SCREENING SURVEY BY AGE AND SEX FOR JULY, 1986 - JUNE, 1987

	TOTAL SCREENED			POSITIVE SCREENEES						NEW DIABETICS					
				NUMBER			PERCENT			NUMBER			RATE*		
	TOTAL	MALE	FEMALE	TOTAL	M	F	TOTAL	M	F	TOTAL	M	F	TOTAL	M	F
ALL AGES	7,126	2,695	4,431	151	59	92	2.11	2.18	2.07	45	15	30	6.31	5.56	6.77
UNDER 25	293	99	194	1	0	1	0.34	0.00	0.51	0	0	0	0.00	0.00	0.00
25-44	1,324	431	893	5	2	3	0.37	0.46	0.33	2	1	1	1.51	2.32	1.11
45-54	635	229	406	10	3	7	1.57	1.31	1.72	1	0	1	1.57	0.00	2.46
55-64	1,781	636	1,145	50	20	30	2.80	3.14	2.62	17	5	12	9.54	7.86	10.48
65-OVER	3,093	1,300	1,793	85	34	51	2.74	2.61	2.84	25	9	16	8.08	6.92	8.92

*Number of new diabetics per thousand screenees.

TABLE 2
DEPARTMENT OF HEALTH
CHRONIC DISEASE BRANCH

DIABETES SCREENING SURVEY BY RACE AND SEX FOR JULY, 1986 - JUNE, 1987

	TOTAL SCREENED			POSITIVE SCREENEES						NEW DIABETICS					
				NUMBER			PERCENT			NUMBER			RATE*		
	TOTAL	MALE	FEMALE	TOTAL	M	F	TOTAL	M	F	TOTAL	M	F	TOTAL	M	F
ALL RACES	7,126	2,695	4,431	151	59	92	2.11	2.18	2.07	45	15	30	6.31	5.56	6.77
JAPANESE	3,303	1,198	2,105	76	30	46	2.30	2.50	2.18	23	9	14	6.96	7.51	6.65
CAUCASIAN	1,606	646	960	20	6	14	1.24	0.92	1.45	7	4	3	4.35	6.19	3.12
HAWAIIAN,PART-HA	482	156	326	16	6	10	3.31	3.84	3.06	5	0	5	10.37	0.00	15.33
CHINESE	610	252	358	12	3	9	1.96	1.19	2.51	2	0	2	3.27	0.00	5.58
FILIPINO	628	274	354	18	11	7	2.86	4.01	1.97	3	1	2	4.77	3.64	5.64
KOREAN	79	25	54	0	0	0	0.00	0.00	0.00	0	0	0	0.00	0.00	0.00
PUERTO RICAN	45	19	26	1	0	1	2.22	0.00	3.84	0	0	0	0.00	0.00	0.00
OTHER & UNSPEC.	373	125	248	8	3	5	2.14	2.40	2.01	5	1	4	13.40	8.00	16.12

*Number of new diabetics per thousand screenees.

TABLE 3
DEPARTMENT OF HEALTH
CHRONIC DISEASE BRANCH

DIABETES SCREENING SURVEY BY ISLAND FOR JULY 1, 1986 - JUNE 30, 1987

LOCATION	TOTAL SCREENED	NO. POSITIVE DEXTROSTIX	NO. POSITIVE AUTOANALYZER	NEW DIABETICS	RATE PER 1000 SCREENED
OAHU	4,899	90	79	23	4.69
HAWAII	1,570	63	58	20	12.73
MAUI	130	2	2	0	0.00
KAUAI	463	10	9	1	2.15
MOLOKAI	0	0	0	0	0.00
OTHERS	64	3	3	1	15.62
TOTAL	7,126	168	151	45	6.31

TABLE 4

BLOOD PRESSURE SCREENING

Fiscal Year 1986 - 1987

	Number	Percent
TOTAL SCREENED	4,587	100.0
Total *Abnormal Referred	1,231	26.8
New Referrals	757	16.5
Known Hypertensive Referrals	474	10.3
Total Normal Screened	3,356	73.2

*Abnormal criteria is 140/90 or above.

TABLE 5
Cholesterol Screening
(November 1, 1986 to June 30, 1987)

	Number	Percent
TOTAL SCREENED	2683	100.00
Normal (under 200 mgm/dl)	1256	46.8
Borderline (200 - 239 mgm/dl)	788	29.4
High (over 239 mgm/dl)	639	23.8

TABLE 6
CHOLESTEROL SCREENING
Abnormal And High Levels By Race
(November 1, 1986 to June 30, 1987)

	Total Screened	No. Abnormal (>199 mgm/dl)	% Abnormal	No. High (>239 mgm/dl)	% High
All Races	2683	1427	53.2	638	23.8
Japanese	1019	795	78.0	309	30.3
Filipino	355	252	71.0	74	20.8
Chinese	279	149	53.4	56	20.1
Hwn/Part Hwn	163	86	52.8	33	20.2
Korean	36	17	47.2	4	11.1
Caucasian	708	325	45.9	141	19.9
Puerto Rican	14	5	35.7	2	14.3
Other	109	38	34.9	20	18.3

EMERGENCY MEDICAL SERVICES SYSTEMS BRANCH

Summary 1987

The Emergency Medical Services System Branch (EMSS) is responsible for the administration and coordination of the state comprehensive emergency medical services system through a cohesive network of components that are designed to reduce morbidity and mortality by assuring the availability and accessibility of the best possible prehospital emergency medical services statewide.

Emergency ambulance services are provided on each of the six major islands within identified geographic areas that allow a response time standard of 95% of all calls responded to within an average of twenty minutes. EMS training programs for Emergency Medical Technicians, Mobile Intensive Care Technicians, and public safety personnel (county and state fire, police, and lifeguards) are provided through the Community Colleges on Oahu, Maui, Kauai, and Hawaii. The statewide MEDICOM medical communication system utilizes complex communication equipment that provides voice communication between ambulance personnel and hospitals. This communication system is essential so that physicians may provide medical direction in the delivery of prehospital emergency medical care.

Table 1 shows the number of emergency ambulance units located on each island and the level of service provided.

Table 2 shows the number of calls responded to by emergency ambulance units on each island.

TABLE 1
EMERGENCY AMBULANCE UNITS/LEVEL OF SERVICES BY ISLAND
STATE OF HAWAII, FISCAL YEAR 1986-87

Island	Level of Service		Total
	BLS	ALS	
Oahu	-	13	13
Hawaii	2	7	9
Maui	1	4	5
Molokai	-	1	1
Lanai	1	-	1
Kauai	-	3	3
Total	4	28	32

BLS = Basic Life Support
ALS = Advanced Life Support

TABLE 2
EMERGENCY AMBULANCE CALLS RESPONDED TO BY ISLAND
STATE OF HAWAII, CALENDAR YEAR 1984-87

Island	1984*	1985*	1986*	1987*
Oahu	24,869	27,407	27,039	26,947
Hawaii	4,889	4,535	4,963	6,175
Maui	3,419	3,752	3,663	4,221
Molokai	371	335	376	386
Lanai	50	80	47	62
Kauai	1,567	1,720	1,912	1,882
Total	35,165	37,829	38,000	39,673

* Preliminary data based on manual record count

LABORATORIES BRANCH

The Laboratories Branch provides services to state agencies, institutions, and other Department of Health Programs that assist in their efforts to protect the public's health and safety, to control the quality of the environment, and to enforce state laws and regulations.

The services include air pollution chemistry, medical microbiology (bacteriology, mycology, parasitology, serology and virology), food and drug analyses, milk and milk product analyses, pesticide analyses, sanitary microbiology, and environmental and sanitary chemistry. The branch provides training opportunities for laboratory personnel in the state, as well as consultation, with other laboratories.

Planning activities for the construction of new laboratory facilities to be located at Waimano Home began in earnest in fiscal year 1987 with the hiring of a local architectural firm and a consulting firm specializing in public health laboratories from the mainland.

In fiscal year 1987 the Air Pollution Section moved from Kinau Hale to the Queen Emma Building. The vacated space is being converted into a chemistry laboratory intended primarily for the analysis of volatile organic contaminants in drinking water. This is a part of the ever increasing demands mandated by the Safe Drinking Water Act. The Chemistry Section has been funded by the Legislature to increase its analytical activities involving local produce.

The Air Pollution Section has implemented new programs such as NESHAPS, PM-10 strategy, and AIRS to further provide more extensive analysis of air samples and a state-of-the-art reporting and data retrieval system. In the future, Air Surveillance and Analysis program will further expand into areas as Air Toxics, Indoor Air, etc., once the new Air Laboratory facility to support this expansion is completed in late 1991 or early 1992.

The Serology and Virology Units have assumed the task of testing samples from the Sexually Transmitted Disease Clinic for antibodies to the Human Immunodeficiency Virus which is responsible for the Acquired Immunodeficiency Syndrome (AIDS). In addition, these units have been preparing for participation in the national seroprevalence study for HIV in the newborn population. Honolulu has been chosen as one of thirty cities in the United States for this study which is sponsored by the Centers for Disease Control in Atlanta, Georgia.

The Sanitary Microbiology Section has been active in the areas of food poisoning in barbecued chickens and in the Honolulu Marathon, in sanitary microbiology studies in local dairy plants, and, in collaboration with the University of Hawaii, in the development of techniques for the analysis of enterococci and staphylococcus aureus in surface and recreation water of the state.

The branch is moving toward increasingly high production as well as toward assuming more reference and regulatory functions. The need to transfer monitoring technology to other laboratories and to provide more sophisticated regulatory analyses are continually addressed by the branch. The branch continues to be certified by the Food and Drug Administration to perform microbiological and chemical analyses on shellfish and milk, and on potable and non-potable water. It is also certified by the EPA to perform air pollution monitoring analyses. The branch serves as a Salmonella Typhi Phage Typing Center and reference laboratory for the Centers for Disease Control and is a collaborating laboratory in the World Health Organization's influenza surveillance system.

TABLE 1

INCIDENCE OF PARASITES FROM HUMANS
CENTRAL LABORATORY ON OAHU
STATE OF HAWAII - JULY 1986 TO JUNE 1987

Total Number of Specimens Examined 239	Total Number of Specimens Positive 48	Total Number of Parasites Found 89

INTESTINAL PARASITES FOUND

ORGANISMS	Number Found	ORGANISMS	Number Found
PROTOZOA		HELMINTHS	
Sarcodina (Amebae)		Nematoda (Round Worms)	
Entamoeba histolytica	3	Ascaris lumbricoides	13
Entamoeba hartmanni	9	Enterobius vermicularis.....	2
Entamoeba coli	4	Hookworm	2
Endolimax nana	12	Strongyloides stercoralis.....	4
Iodamoeba butschlii	1	Trichuris trichiura	18
Mastigophora (Flagellates)		HEXAPODA	
Giardia lamblia	13	Muscoid Flies	
		Fly larva or maggot	2
Undetermined Classification			
Blastocysitis hominis	6		

TABLE 2

INCIDENCE OF SALMONELLA BY TYPE AND AGE
CENTRAL LABORATORY ON OAHU

STATE OF HAWAII - JULY 1986 TO JUNE 1987

Group	Serotype	All Ages Total	Less than Six Months	Six Months to One Year	One Year to Three Years	Three Years to Ten Years	Ten Years to Twenty Years	Twenty Years and Over	Unknown
		490	90	50	64	37	39	176	34
A	paratyphi A	1						1	
B	agona	16	1	4	2	1	1	6	1
	bredeney	4	2		1	1			
	derby	4			1	1		2	
	heidelberg	86	15	8	19	9	2	26	7
	saint paul	7	1		2	1		2	1
	typhimurium	48	4	8	10	5	8	12	1
	typhimurium var copenhagen	4	2		1			1	
C_1	birkenhead	2	1					1	
	infantis	7	1	1	1			4	
	mbandaka	1			1				
	montevideo	62	6	4	9	6	8	27	2
	ohio	8	1	1	2	1	1	2	
	oranienburg	1							1
	oslo	4	1		1			2	
	papuana	1			1				
	singapore	4			1			3	
	thompson	4						3	1
	virchow	1						1	
C_2	albany	3	1					2	
	blockley	1						1	
	bovis-morbificans	1						1	
	hadar	13	6	1		1	1	2	2

TABLE 2 (continued)

INCIDENCE OF SALMONELLA BY TYPE AND AGE
CENTRAL LABORATORY ON OAHU

STATE OF HAWAII - JULY 1986 TO JUNE 1987

Group	Serotype	All Ages Total	Less than Six Months	Six Months to One Year	One Year to Three Years	Three Years to Ten Years	Ten Years to Twenty Years	Twenty Years and Over	Unknown
	hiduddify	2						2	
	hvittingfoss	2							2
	litchfield	2				1		1	
	manhattan	8	1			1	1	4	1
	muenchen	6		4	1			1	
	newport	25	6	2	4	2		11	
	virginia	7		4	1			2	
D_1	berta	2					1	1	
	enteritidis	18			1		1	13	3
	naestved	1						1	
	panama	5	2		1	1		1	
	typhi, phage type A	2						1	1
	typhi, phage type B_1	1					1		
	typhi, phage type E_2	1				1			
	typhi, phage type M_1	20				1	6	6	7
E_1	anatum	5	1	2		1		1	
	drypool	1						1	
	give	5	3					1	1
	lexington	1						1	
	meleagridis	1					1		
	muenster	1						1	
	weltevreden	65	26	7	4	2	5	19	2

TABLE 2 (continued)

INCIDENCE OF SALMONELLA BY TYPE AND AGE
CENTRAL LABORATORY ON OAHU

STATE OF HAWAII - JULY 1986 TO JUNE 1987

GROUP	Serotype	All Ages Total	Less than Six Months	Six Months to One Year	One Year to Three Years	Three Years to Ten Years	Ten Years to Twenty Years	Twenty Years and Over	Unknown
E_2	binza	2				1		1	
	lanka	10	5	2				2	1
	newington	1						1	
E_4	senftenberg	1						1	
	salmonella 1.19:nonmotile	2						2	
F	aberdeen	5	1	1			2	1	
I	gaminara	2	2						
K	cerro	1		1					
S	waycross	1						1	
	Salmonella)'s-H's b,7	1	1						

TABLE 3

INCIDENCE OF SALMONELLA BY TYPE FROM NONHUMAN SOURCES
CENTRAL LABORATORY ON OAHU
STATE OF HAWAII - JULY 1986 TO JUNE 1987

Group	Salmonella Serotype	SOURCE												
		TOTAL	Avian	Bovine	Canine	Equine	Guinea Pig	Iguana	Lizard	Pisces	Porcine	Rabbit	Rat	Toad	Turtoise
B	agona	1						1							
	derby	2									2				
	heidelberg	2			2									4	
	reading	4							2				1		
	san diego	6	4												
	typhimurium	11	9	1						2		8			
	typhimurium var copenhagen	15	5												
C_1	mbandaka	2									2				
	ohio	1		1											1
	singapore	1													
	tennessee	1		1											
C_2	albany	9		9							3				
	manhattan	3						3	2						
	muenchen	5							29					1	
	newport	32	2												
D_1	dublin	1		1											
E_1	anatum	6		4		2									
	give	27							27						
	lexington	2		2											
	muenster	2									2				
	veltevreden	5					3								2
E_2	lanka	2									2				
	newington	3		3											
F	parera	2							2						

TABLE 3 (continued)

INCIDENCE OF SALMONELLA BY TYPE FROM NONHUMAN SOURCES
CENTRAL LABORATORY ON OAHU
STATE OF HAWAII - JULY 1986 TO JUNE 1987

Group	Salmonella Serotype	SOURCE													
		TOTAL	Avian	Bovine	Canine	Equine	Guinea Pig	Iguana	Lizard	Pisces	Porcine	Rabbit	Rat	Toad	Turtoise
G_1	worthington	19		19											
K	cerro	3		3											
U	houten	2											2		
	Subgenus II Salmonella 058 $1Z_{13}$, Z_{28}	2							2						
	TOTAL	171	20	44	2	2	3	4	64	2	11	8	3	5	3

PUBLIC HEALTH NURSING BRANCH

SUMMARY

The goals of public health nursing practice are primary prevention and health promotion. To accomplish these goals, public health nurses worked collaboratively with private and public agencies to help Hawaii's residents attain and maintain optimal health.

There were several highlights during the year. In collaboration with Health Promotion & Education Office, Chronic Disease Branch, and the American Red Cross, public health nurses conducted 77 "Staying Healthy After Fifty" sessions statewide. The primary purpose of these sessions was to provide a comprehensive wellness education to those individuals 50 years and older. The Case Management Coordination Projects (CMCP) for the frail, vulnerable elderly served 434 persons: 188 on Hawaii; 146 on Maui; 23 on Kauai, and 77 in rural Oahu. These projects have demonstrated the benefits derived in service delivery and recipient care outcomes through collaborative efforts among the many community programs and agencies in meeting the needs of the dependent elderly. The Health Maintenance and Wellness Project for the Elderly on Kauai and Maui served 652 seniors through in-depth health screenings and health education group sessions focusing on positive life style changes. The State Hypertension Project expanded to include training of all firefighters in the state in blood pressure screening activities (see separate report) and in the Summer of 1987, the Branch was awarded funds from the Federal Government to develop and implement a comprehensive diabetes control program in Hawaii.

The Branch, despite its 23% vacancy rate during the year through staff turnovers, recruitment delays, and the nursing shortage, provided nursing services to 74,680 residents. Services were provided through 71,542 home and office visits; 61,043 telephone visits; 471 school visits; 315 day care visits; 789 adult residential care home visits; 2,331 clinic sessions; 1,861 well child conferences; and 508 group education sessions.

Table 1 shows the number of cases admitted to ongoing services statewide and the total visits made. Although there was a 2.8% decrease in the caseload, the number of visits increased by 6.5% over FY86. More visits per case were made to those with disabilities and/or pathological conditions over those who received Health Guidance services.

Tables 2 and 6 provide data associated with clinics. The data covers twenty different types of clinics with clinic services to well children and tuberculin testing showing the most activity.

Tables 3, 4, and 5 show statistics related to specific age groups, school age children, preschool age children, and the elderly respectively. Services to children remained unchanged while services to the elderly increased by 51% over the previous year. As noted over the past few years, nursing intervention services have shown a concomitant increase as the aged population grow.

Table 7 represents the number of group education sessions and attendance to the twelve subject area sessions. There was a 20% increase in the number of sessions held and a 10% increase in the attendance from FY86.

TABLE 1

CASES ADMITTED TO PUBLIC HEALTH NURSING SERVICE AND VISITS MADE BY COUNTY
STATE OF HAWAII

FISCAL YEAR 1987

Type of Nursing Services	State		Honolulu		Hawaii		Kauai		Maui	
	Cases a/	Visits b/	Cases a/	Visits b/	Cases a/	Visits b/	Cases a/	Visits b/	Cases a/	Visits b/
Maternity	802	2,262	429	1,621	58	89	189	273	126	279
Infant and Preschool Child Health	15,676	54,371	8,340	36,419	3,293	7,494	1,191	2,549	2,852	7,909
School Aged Child c/	1,665	4,938	1,123	3,552	170	410	120	301	252	675
Adult and Elderly Health	3,792	10,095	2,162	5,961	75	218	1,119	2,126	436	1,790
Tuberculosis d/	6,024	17,499	3,082	6,916	1,124	4,874	601	1,233	1,217	4,476
Hansen's Disease	580	2,408	328	1,669	94	277	24	180	134	282
Other Communicable Disease d/	140	345	81	260	19	31	1	1	39	53
Developmentally Disabled Children	817	8,393	557	6,253	112	967	36	254	112	919
Other Handicapped Children	1,054	12,058	560	8,038	240	1,666	91	907	163	1,447
Chronic Diseases	2,210	17,908	1,276	7,058	266	7,039	228	792	440	3,019
Emotional Problems	263	1,040	217	875	3	25	3	16	40	124
All Others	114	656	71	497	13	25	1	9	29	125
Not Home/Not Found	74	2,187	50	1,804	14	145	---	63	10	175
TOTALS	33,211	134,160	18,276	80,923	5,481	23,260	3,604	8,704	5,850	21,273

a/ Cases: Individuals admitted to nursing service for a particular condition.
b/ Visits: Personal contacts with health content.
c/ Health Guidance Only. Excludes visits to school children in other diagnostic categories.
d/ Includes diagnosed cases and contacts.

TABLE 2

CLINICS CONDUCTED BY PUBLIC HEALTH NURSING SERVICE BY TYPE OF CLINIC, NUMBER OF SESSIONS AND ATTENDANCE BY COUNTY
STATE OF HAWAII

FISCAL YEAR 1987

Type of Clinic	State		Honolulu		Hawaii		Kauai		Maui	
	Session	Attendance	Session	Attendance	Session	Attendance	Session	Attendance	Session	Attendance
Well Child	1,861	24,028	809	11,981	568	6,508	144	1,552	340	3,987
School	16	673	6	342	2	69	6	149	2	113
Day Care	2	25	1	18	1	7	---	---	---	---
Adult and Elderly Health	404	4,917	139	2,922	4	66	195	1,177	66	752
Cardiac (for children)	31	355	8	95	13	161	6	59	4	40
Neurology (for children)	20	101	4	16	13	75	---	---	3	10
Other Crippled Children	8	151	1	20	6	87	---	---	1	44
Tuberculosis Testing	1,540	62,211	658	37,650	326	9,589	209	6,068	347	8,904
Tuberculosis Diagnosis and Treatment	158	2,457	---	---	15	20	93	731	50	1,706
Leprosy	27	465	13	238	8	109	3	55	3	63
Other Communicable Disease	2	25	1	12	1	13	---	---	---	---
Immunization	34	693	3	219	10	107	16	334	5	33
Blood Pressure Screening	42	1,251	4	307	---	---	38	944	---	---
Others	47	380	26	200	10	59	9	113	2	8
TOTALS	4,192	97,732	1,673	54,020	977	16,870	719	11,182	823	15,660

TABLE 3

PUBLIC HEALTH NURSING SERVICE TO SCHOOLS AND SCHOOL AGE CHILDREN BY COUNTY a/
STATE OF HAWAII

FISCAL YEAR 1987

Type of Activity	State	Honolulu	Hawaii	Kauai	Maui
Visits to Schools b/	487	271	35	105	76
Visits to School Age Children c/	15,279	9,863	2,320	831	2,265
TOTALS	15,766	10,134	2,355	936	2,341

a/ Excludes public schools.
b/ All service programs.
c/ Outside of school environment.

TABLE 4

PUBLIC HEALTH NURSING SERVICES IN DAY CARE CENTERS AND PRESCHOOL AGE CHILDREN BY COUNTY
STATE OF HAWAII

FISCAL YEAR 1987

Type of Activity	State	Honolulu	Hawaii	Kauai	Maui
Visits to Day Care Centers	315	223	14	26	52
Visits to Preschool Age Children	38,890	26,694	5,341	1,624	5,231
TOTALS	39,205	26,917	5,355	1,650	5,283

TABLE 5

PUBLIC HEALTH NURSING SERVICE TO ADULT RESIDENTIAL CARE HOMES AND ELDERLY BY COUNTY
STATE OF HAWAII

FISCAL YEAR 1987

Type of Activity	State	Honolulu	Hawaii	Kauai	Maui
Visits to Adult Residential Care Homes	789	479	127	107	76
Visits to Elderly (60 years and over)	34,405	13,988	7,252	7,862	5,303
TOTALS	35,194	14,467	7,379	7,969	5,379

TABLE 6

CHILD HEALTH CLINICS BY TYPE OF CLINIC, NUMBER OF SESSIONS, ATTENDANCE AND COUNTY
STATE OF HAWAII

FISCAL YEAR 1987

Type of Clinics	State		Honolulu		Hawaii		Kauai		Maui	
	Session	Attendance	Session	Attendance	Session	Attendance	Session	Attendance	Session	Attendance
Medical	514	9,518	358	6,399	89	1,824	34	685	33	610
Nursing	1,347	14,510	451	5,582	479	4,684	110	867	307	3,377
TOTALS	1,861	24,028	809	11,981	568	6,508	144	1,552	340	3,987

TABLE 7

GROUP EDUCATION SESSIONS CONDUCTED BY PUBLIC HEALTH NURSING SERVICE BY SUBJECT, NUMBER OF SESSIONS, ATTENDANCE AND COUNTY
STATE OF HAWAII

FISCAL YEAR 1987

Subject	State		Honolulu		Hawaii		Kauai		Maui	
	Session	Attendance	Session	Attendance	Session	Attendance	Session	Attendance	Session	Attendance
Maternal and Child Health	23	250	14	198	3	31	2	10	4	11
Public Health/ Public Health Nursing	18	520	9	252	1	24	8	244	---	---
Chronic Disease	14	164	4	45	3	22	---	---	7	97
Communicable Disease	25	428	13	198	11	228	1	2	---	---
Nutrition	9	77	4	32	3	28	1	7	1	10
Handicapped Child	1	10	1	10	---	---	---	---	---	---
School Health	8	177	5	56	2	61	---	---	1	60
Adult Health	6	89	6	89	---	---	---	---	---	---
Wellness	44	398	35	321	9	77	---	---	---	---
Geriatrics	204	4,348	28	332	---	---	176	4,016	---	---
Hypertension--Firefighters	2	32	2	32	---	---	---	---	---	---
Other	154	2,859	40	749	5	71	1	22	108	2,017
TOTALS	508	9,352	161	2,314	37	542	189	4,301	121	2,195

PUBLIC HEALTH NURSING BRANCH
STATE HYPERTENSION PROJECT

SUMMARY

The State Hypertension Project, federally funded under the Preventive Health Block grant, Department of Health and Human Services, has been administered by Public Health Nursing Branch since its start in May, 1980.

Hypertension is a major risk factor of cardio-vascular disease, the leading cause of death in the nation and in Hawaii. The mission of the Project is to decrease blood pressures, increase the number of known hypertensives with controlled blood pressures and thus to prevent morbidities and mortalities due to strokes and hypertension related diseases of the heart and kidneys. To accomplish its mission, the Project coordinates the efforts of a comprehensive blood pressure control program with 45 agencies throughout the State. Together, these agencies provided a total of 17,867 blood pressure tests, screening an estimated 15,066 individuals. The project reached a total of 418 lay people and professionals in 49 education sessions on hypertension and related diseases. 780 firefighters were certified or recertified in blood pressure testing activities in 85 training sessions. They in turn, conducted a total of 7,542 blood pressure tests. Expansion of the fire department blood pressure screening program continued with the addition of the Kauai County Fire Department. Beginning in 1988, all County Fire Departments thoughout the State will be participating in blood pressure screening activities. Comprehensive services continue to be targeted to groups at high risk of developing high blood pressure. Nine screening and/or education sessions were provided at seven worksites where target groups were concentrated. By 1988, the screening, follow up, and education program will be available free to the public in essentially every community in the State.

The Project organized the Hawaii State Coordinating Council in High Blood Pressure Control in 1985 and continues to head this diversely representative group of 51 members through monthly meetings and dissemination of information.

Table 1 shows the results of 45 agencies working in collaboration with the Project. There was an increase of 25% in the number of tests given, and a 28% increase in the number of individuals served. From 14,273 to 17,868 number of tests given and from 11,703 to 15,066 number of individuals served.

Table 2 summarizes the prevalence, treatment, and control data from the 15,066 individuals screened. The prevalence of hypertension in Hawaii's adults is estimated to be between 35 to 37% (this is based on data from the Project's screening activities, which is not a random screening). Of the known hypertensives who participated in varied community screenings, 72.64% were on treatment for their high blood pressure as compared to 71.1% in 1986. The number of hypertensives with controlled blood pressure increased from 37.4% to 39.14%.

Table 3 reflects the training and education activities of the project reaching health professionals, the lay public, and firefighters who were also certified as blood pressure screeners. A total of 2038 individuals were reached in 146 group sessions.

TABLE 1

GENERAL BLOOD PRESSURE SCREENING AND FOLLOW UP SERVICES
PROVIDED BY PARTICIPATING AGENCIES

PUBLIC HEALTH NURSING BRANCH -- STATE HYPERTENSION PROJECT
STATE OF HAWAII

FISCAL YEAR 1987

Number of Blood Pressure Tests Given	Number of Individuals Served	Number Receiving Follow Up
17,867	15,066	3,919

TABLE 2

BLOOD PRESSURE CONTROL STATUS OF HAWAII'S PEOPLE

PUBLIC HEALTH NURSING BRANCH -- STATE HYPERTENSION PROJECT

FISCAL YEAR 1987

	1987	1986
Prevalence of Hypertension	37.6%	38.4%
Hypertensives on Treatment	72.6%	71.1%
Hypertensives with Controlled Blood Pressure	39.1%	37.4%

TABLE 3

PUBLIC HEALTH NURSING BRANCH -- STATE HYPERTENSION PROJECT

FISCAL YEAR 1987

	Number of Groups Reached	No. of Individuals Reached
Training and Education		
Professional Education	28	318
Public Education	21	185
Health Fairs	4	743
Blood Pressure Certification		
Firefighters	85	780
Other	8	94
TOTALS	146	2038

NUTRITION BRANCH

SUMMARY

To promote optimal nutritional status and to reduce the risk of disease associated with diet through education, early detection and intervention is the goal of the Nutrition Branch. Nutrition is one of the key factors in the promotion of health, in the prevention of disease and in improving the quality of life.

Major categories of services are provided by the Nutrition Branch:

- Nutrition education for the public
- Consultations to agencies and individuals
- Inspections of hospitals, other medical facilities and adult residential care homes
- Nutrition screening and assessment

The preventive aspects of nutrition are emphasized. Accurate, up-to-date nutrition information is provided through pamphlets, newsletters and news articles, talks to community and student groups, workshops, exhibits at health fairs, T.V. and radio programs, and telephone calls. Table I shows a 188% increase in 1987 in numbers reached through talks and workshops.

Nutrition consultations and direct services are provided to programs within the department, other governmental agencies, community and professional groups and the general public. The Public Health Nutritionists provide consultation and licensure services to hospitals, skilled nursing and intermediate care facilities, special treatment facilities and adult residential care homes to assist them in meeting dietary standards according to State and Federal regulations. There were fewer inspections made to adult residential care homes since emphasis was placed in providing nutrition and special diet training to the operators.

The Special Supplemental Food Program for Women, Infants and Children (WIC Program) funded by the United States Department of Agriculture is administered by the Nutrition Branch. Nutrition screening and assessment, nutrition education and nutritious food are provided to low income pregnant women, nursing mothers, infants and children up to age 5, who are at nutritional risk. In 1987, the WIC Program provided food vouchers to an average of 10,366 participants each month. This was an increase of 17% in the number of participants from 8,826 to 10,366. Nutrition assessment and diet counseling is ongoing and the total number of contacts was 74,322.

The WIC Program is participating in the Pediatric Nutrition Surveillance in cooperation with the Centers for Disease Control. Table II summarizes the prevalence of abnormal conditions in infants and children from birth to age 5 by counties. Figures 1 and 2 indicate the nutrition risk trends from 1983-1987.

TABLE I
NUTRITION BRANCH SERVICES
STATE OF HAWAII: 1987

Type of Nutrition Services	Number of Sessions	Number Reached or Participants
Nutrition Education		
Talks to community groups	72	2272
Talks to students	44	1496
Talks to senior citizens groups	42	1409
Department of Health groups	22	357
Workshops	100	1667
Radio and TV	16	
Health Fairs	11	
Nutrition Branch leaflets and booklets produced and distributed		131,822

Consultations and Inspections	Number
Adult Residential Care Homes	
Inspections	169
Consultations and Visits	142
Hospitals, Skilled Nursing Facilities and Intermediate Care Facilities	
Medicare certifications	62
Consultations	34
Special Treatment Facilities	
Inspections	10
Consultations and Visits	9
Other Agencies and Individuals	
Consultations	1927
Department of Health	
Consultations	399

Nutrition Assessment and Diet Counseling	Number Reached
Special Supplemental Food Program for Women, Infants and Children (WIC) --	74,322*

*Participants receive nutrition assessment and diet counseling three or more times a year.

TABLE II
HAWAII PEDIATRIC NUTRITION SURVEILLANCE
01/01/87 to 12/31/87

COUNTY	TOTAL EXAM	HT/AGE < 5TH			WT/HT < 5TH			WT/HT > 95TH			LOW BIRTH WT			HGB/AGE < 5TH			HCT/AGE <5TH		
		EXAM	LOW	PCT	EXAM	LOW	PCT	EXAM	HIGH	PCT	EXAM	LOW	PCT	EXAM	LOW	PCT	EXAM	LOW	PCT
Hawaii	1596	1568	184	11.7	1533	66	4.3	1533	100	6.5	565	39	6.9	1009	20	2.0	540	37	6.9
Oahu	7110	6294	817	13.0	6244	331	5.3	6244	492	7.9	5894	660	11.2	4496	130	2.9	3022	183	6.1
Kauai	276	270	52	19.3	256	24	9.4	256	15	5.9	191	33	17.3	170	10	5.9	57	2	*
Maui	975	915	133	14.5	907	26	2.9	907	87	9.6	336	43	12.8	681	10	1.5	74	7	*
STATE TOTAL	9957	9047	1186	13.1	8940	447	5.0	8940	694	7.8	6986	775	11.1	6356	170	2.7	3693	229	6.2

*Value does not meet standards of reliability or precision

HAWAII WIC PROGRAM
1987 PEDIATRIC NUTRITION SURVEILLANCE
NUTRITION RISK TRENDS

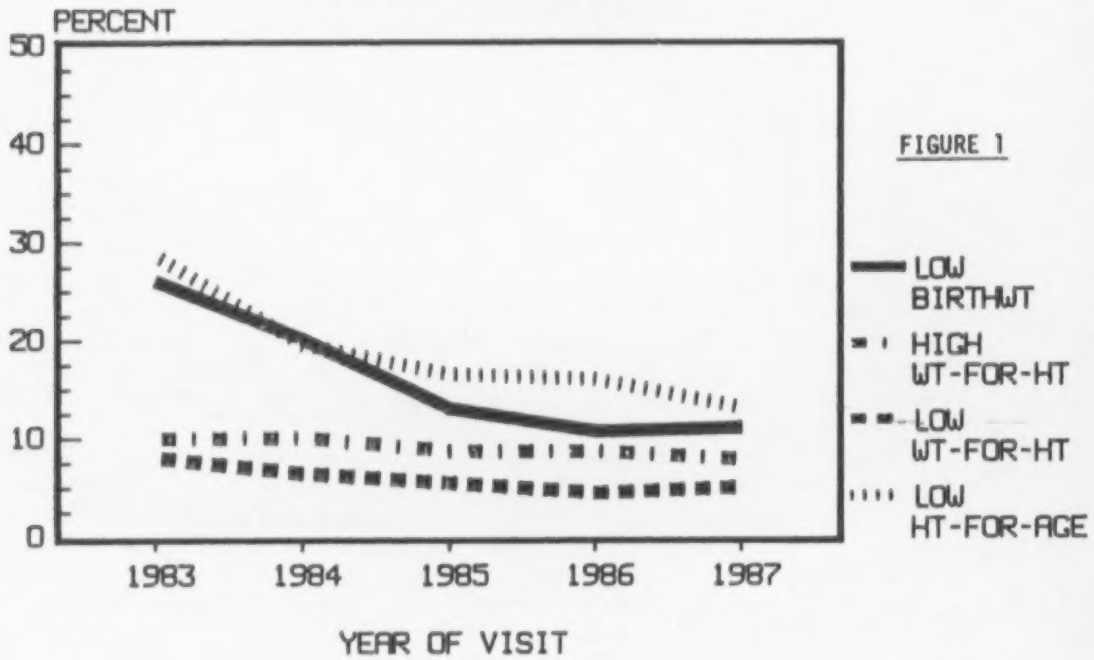


FIGURE 1

HAWAII WIC PROGRAM
1987 PEDIATRIC NUTRITION SURVEILLANCE
TRENDS IN ANEMIA

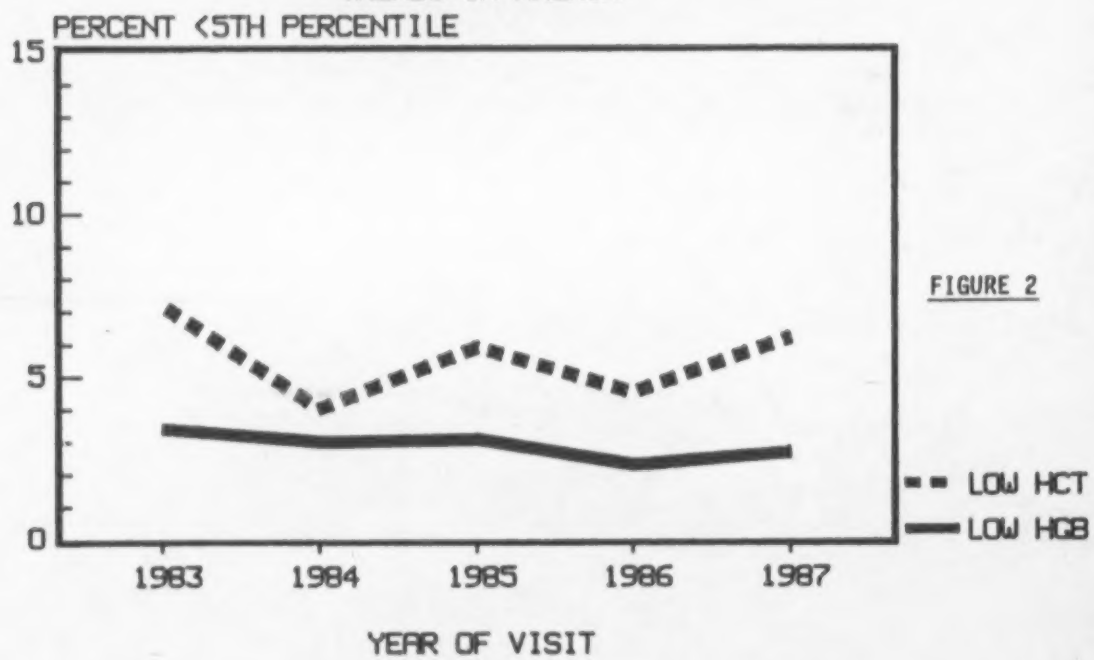


FIGURE 2

HOSPITAL AND MEDICAL FACILITIES BRANCH

The Hospital and Medical Facilities Branch of the Medical Health Services Division focuses on the quality of care delivered in and by health facilities and agencies. Regulations for the various types of facilities needed to meet community needs are prepared and adopted following public hearings, and revisions of regulations are an ongoing policy. Regulations are enforced by inspections, surveys and consultations performed by specially trained surveyors composed of multi-disciplinary specialists. Licensing of facilities and certification for participation in the Federal Medicaid and Medicare Programs are one major function of the Branch.

Facilities which are included in the licensing and certification process include, in the order of intensity of care necessary: Acute Hospitals, Skilled Nursing Facilities, Intermediate Care Facilities, and "swing" bed facilities where intermediate care and skilled nursing beds are located in one facility and used as necessary depending on the condition of the patient. (Acute Hospitals may have distinct parts allocated to skilled nursing and intermediate care beds.) Independent Laboratories and Intermediate Care Facilities for the Mentally Retarded are also included in this section, as are other community-based caregivers such as End-stage Renal Dialysis Centers, various rehabilitation services, Home Health Agencies, Freestanding Surgical Outpatient Facilities, Hospice, Adult Day Health Care.

An equally important section issues State licenses for facilities and services unique to Hawaii such as Adult Residential Care Homes for frail and dependent persons, Special Treatment Facilities, primarily for alcohol and drug abuse, and Adult Foster Homes.

Tables showing the number of facilities and beds under each category for the State and its Counties are given in this section along with a 5-year comparison with 1982 to reflect growth.

TABLE 1
CHANGES IN TYPES AND NUMBER OF FACILITIES BY ISLAND
STATE OF HAWAII, 1982 - 1987

Type of Facility	State Total			Oahu			Hawaii			Kauai			Lanai			Maui			Molokai		
	1987	1982	%Change	1987	1982	%Change	1987	1982	%Change	1987	1982	%Change	1987	1982	%Change	1987	1982	%Change	1987	1982	%Change
Hospitals	27	28	-4	15	15	-	5	5	-	3	3	-	1	1	-	2	3	-33	1	1	-
Skilled Nursing/ Intermediate Care	37	34	+9	22	21	+5	6	6	-	4	3	+33	1	1	-	3	2	+50	1	1	-
Intermediate Care Facilities/MR	18	2	+800	17	1	+1600	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
Special Treatment Facilities	14	20	-30	10	14	-29	1	1	-	1	2	-50	-	-	-	2	3	-33	-	-	-
Independent Laboratories	29	33	-12	22	24	-8	3	5	-40	-	-	-	-	-	-	4	4	-	-	-	-
Home Health Agencies	17	9	+89	9	3	+200	4	2	+100	1	1	-	1	1	-	1	1	-	1	1	-
End-Stage Renal Disease	10	7	+43	6	4	+50	2	1	100	1	1	-	-	-	-	1	1	-	-	-	-
Adult Residential Care Homes	574	295	+95	450	244	+84	60	20	+200	36	15	+140	-	-	-	18	14	+29	10	2	+400
Independent Rehabilitation Facilities	3	---	---	1	---	---	2	---	---	-	---	---	-	---	---	-	---	---	-	---	---
Freestanding Outpatient Surgical Facilities	7	---	---	6	---	---	-	---	---	-	---	---	-	---	---	1	---	---	-	---	---
Adult Day Health Centers	4	---	---	3	---	---	1	---	---	-	---	---	-	---	---	-	---	---	-	---	---
Hospice	3	---	---	2	---	---	-	---	---	1	---	---	-	---	---	-	---	---	-	---	---

TABLE 2
CHANGES IN BED COUNT IN FACILITIES BY ISLAND
STATE OF HAWAII, 1982 - 1987

Type of Facility	State Total			Oahu			Hawaii			Kauai			Lanai			Maui			Molokai		
	1987	1982	%Change	1987	1982	%Change	1987	1982	%Change	1987	1982	%Change	1987	1982	%Change	1987	1982	%Change	1987	1982	%Change
Hospitals	2919	2789	+5	2360	2202	+7	264	262	+1	122	154	-21	6	6	-	151	150	+1	16	15	+7
Skilled Nursing/ Intermediate Care	2988	2668	+12	2036	1783	+14	400	406	-1	191	121	+58	8	8	-	339	336	-	14	12	+17
Intermediate Care Facilities/MR	297	434	-32	289	426	-32	-	-	-	-	-	-	-	-	-	8	8	-	-	-	-
Special Treatment Facilities	483	514	-6	402	407	-1	13	14	-7	12	18	-33	-	-	-	56	75	-25	-	-	-
Adult Residential Care Homes	2809	1614	+74	2260	1353	+67	249	81	+207	179	112	+60	-	-	-	73	51	+43	48	17	+182

TABLE 3
TYPES*, NUMBER AND BED COUNT OF ADULT RESIDENTIAL CARE HOMES BY ISLAND
STATE OF HAWAII, 1987

	State Total			Oahu			Hawaii			Kauai			Maui			Molokai		
	Type II	Type I	Total	Type II	Type I	Total	Type II	Type I	Total	Type II	Type I	Total	Type II	Type I	Total	Type II	Type I	Total
Number	16	558	574	11	439	450	1	59	60	3	33	36	-	18	18	1	9	10
Bed Count	503	2306	2809	406	1854	2260	13	236	249	70	109	179	-	73	73	14	34	48

* TYPE II - More than five beds
I - Five beds or less

MENTAL HEALTH DIVISION

MENTAL HEALTH DIVISION

The Mental Health Division provides both inpatient and outpatient services for a wide range of problems affecting disparate populations. The utilization patterns of services provide significant leads to understanding the nature, severity, and determinants of mental illness.

It is important to note that the tables in this year's statistical report as well as prior years, with the exception of 1984, are summarized by calendar year. The 1984 annual statistical data was summarized by fiscal year because of a one time change necessitated by a database conversion from the batch oriented Multi-State Information System (MSIS) to the online, network oriented Mental Health Field Assessment and Statistical Information System (MFASIS) which was completed in 1985.

The tables from calendar year 1985 and on have been completely redesigned and are different from that of all previously published annual reports. The 1974 through 1981 reports examined demographic statistical information related to diagnosis, and the 1982 through 1984 reports displayed demographic information related to problems on admission.

Table 1 shows the Mental Health Division Movement Summary for the period 1974 - 1987 of actives, admissions, terminations, and unduplicated counts of clients.

Table 2 represents the total active clients as of the end of the year by age and Community Mental Health Centers.

Table 3 displays figures on admissions for the year by age and Community Mental Health Centers.

Table 4 displays demographic characteristics of clients served by ethnicity, age and sex for the entire year.

Table 5 shows demographic characteristics of clients admitted, active, and discharged for the year broken down by ethnicity.

Table 6 represents the referral source of admissions during the year by referral source, and the number of new admissions and readmissions.

Table 7 shows the reasons why a client was discharged.

Mental Health Field Assessment and Statistical Information System

MENTAL HEALTH DIVISION MOVEMENT SUMMARY, 1974 - 1987
TABLE 1

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984*	1985	1986	1987
Unduplicated Count of Patients Served	10522	11101	11935	11806	11642	10713	10625	10689	10312	9970	9724	8891	8342	8220
Actives	6500	7090	6979	6905	6886	6392	6328	6642	6287	6022	5692	6328	5852	5754
Admissions	5073	5233	5533	5453	5441	4564	4696	4947	4885	4761	4307	3933	3826	3678
Terminations	4618	4633	5684	5529	5522	5057	4759	5062	5155	5030	4887	4221	3725	3452

*For the Fiscal Year 1984 (7/1/83 to 6/30/84).

Mental Health Field Assessment and Statistical Information System

Age Summary Report
DEMOGRAPHIC CHARACTERISTICS OF ACTIVE CLIENTS
TABLE 2*

DIVISION

As of 12/31/87

Center:	Oahu-Other Services		Central Oahu CMHC		Windward Oahu CMHC		Leeward Oahu CMHC		Diamond Head CMHC		Kalihi Palama CMHC		Maui MHC		East Hawaii CMHC	
	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/
AGE																
0 - 11	1	0.2	56	10.3	118	21.6	66	12.1	28	5.1	78	14.3	46	8.4	50	9.2
12 - 17			34	6.0	62	11.0	64	11.4	39	6.9	52	9.3	76	13.5	88	15.7
18 - 39	498	17.7	129	4.6	129	4.6	221	7.8	274	9.7	238	8.4	320	11.4	207	7.3
40 - 59	115	7.7	101	6.8	104	7.0	124	8.3	173	11.6	177	11.9	177	11.9	155	10.4
60 and over	5	0.9	38	7.1	39	7.3	89	16.6	83	15.5	58	10.8	54	10.1	69	12.9
Unknown													1	50.0		
Total	619	10.4	358	6.0	452	7.6	564	9.5	597	10.0	603	10.1	674	11.3	569	9.6

Center:	West Hawaii CMHC		Kauai CMHC		North Hawaii CMHC		Hawaii State Hospital		Waianae MHC		Other		Total	
	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% b/
AGE														
0 - 11			33	6.0			15	2.7	26	4.8	29	5.3	546	9.2
12 - 17	1	0.2	47	8.4	4	0.7	15	2.7	42	7.5	38	6.8	562	9.4
18 - 39	193	6.9	217	7.7	19	0.7	142	5.0	148	5.3	82	2.9	2817	47.3
40 - 59	86	5.8	110	7.4	15	1.0	67	4.5	52	3.5	32	2.2	1488	25.0
60 and over	21	3.9	35	6.5	8	1.5	9	1.7	12	2.2	15	2.8	535	9.0
Unknown											1	50.0	2	c/
Total	301	5.1	442	7.4	46	0.8	248	4.2	280	4.7	197	3.3	5950	100.0
Unduplicated total													5754	

* Numbers may not add up due to rounding.
a/ Percentage of Row
b/ Percentage of Column
c/ Less than .1 percent.

Mental Health Field Assessment and Statistical Information System

AGE SUMMARY REPORT
DEMOGRAPHIC CHARACTERISTICS OF ADMISSION BY UNITS
TABLE 3*

DIVISION

From: 01/01/87 To: 12/31/87

	Central Oahu CMHC		Windward Oahu CMHC		Leeward Oahu CMHC		Diamond Head CMHC		Kalihi Palama CMHC		Maui MHC		East Hawaii CMHC	
	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/
AGE														
0 - 11	44	9.2	78	16.3	63	13.1	69	14.4	58	12.1	30	6.3	32	6.7
12 - 17	42	8.1	56	10.8	59	11.4	80	15.5	47	9.1	43	8.3	29	5.6
18 - 39	127	6.8	76	4.0	150	8.0	253	13.5	218	11.6	135	7.2	67	3.6
40 - 59	42	6.4	19	2.9	50	7.6	104	15.8	89	13.5	42	6.4	24	3.7
60 and over	12	8.4	4	2.8	12	8.4	14	9.8	14	9.8	6	4.2	14	9.8
Unknown											1	50.0		
Total	267	7.3	233	6.3	334	9.1	520	14.1	426	11.6	257	7.0	166	4.5

	West Hawaii CMHC		Kauai CMHC		North Hawaii CMHC		Hawaii State Hospital		Waianae CMHC		Other		Total	
	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% b/
AGE														
0 - 11			34	7.1	2	0.4	43	9.0	12	2.5	15	3.1	480	13.1
12 - 17	1	0.2	40	7.7	5	1.0	83	16.1	10	1.9	22	4.3	517	14.1
18 - 39	104	5.5	166	8.8	24	1.3	459	24.5	56	3.0	42	2.2	1877	51.1
40 - 59	32	4.9	55	8.4	14	2.1	162	24.7	16	2.4	8	1.2	657	17.9
60 and over	5	3.5	25	17.5	6	4.2	24	16.8	1	0.7	6	4.2	143	3.9
Unknown											1	50.0	2	0.1
Total	142	3.9	320	8.7	51	1.4	771	21.0	95	2.6	94	2.6	3676	100.0
Unduplicated total													3122	

* Numbers may not add up due to rounding.
a/ Percent of Row.
b/ Percent of Column.

Mental Health Field Assessment and Statistical Information System

ETHNIC SUMMARY REPORT BY AGE AND SEX
DEMOGRAPHIC CHARACTERISTICS OF CLIENTS SERVED BY AGE AND SEX
TABLE 4*

DIVISION

Period: 01/01/87 thru: 12/31/87

	0 --- 11						12 --- 17						18 --- 39					
	MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL	
ETHNICITY	#	% a/	#	% a/	#	% b/	#	% a/	#	% a/	#	% b/	#	% a/	#	% a/	#	% b/
Alaskan Native	1	100.0			1	14.3			2	100.0	2	28.6	2	100.0			2	28.6
American Indian	2	66.7	1	33.3	3	7.3	5	83.3	1	16.7	6	14.6	11	40.7	16	59.3	27	65.9
Black	26	86.7	4	13.3	30	20.8	7	63.6	4	36.4	11	7.6	48	62.3	29	37.7	77	53.5
Cambodian							2	66.7	1	33.3	3	23.1	2	66.7	1	33.3	3	23.1
Caucasian	201	76.7	61	23.3	262	11.2	143	64.4	79	35.6	222	9.5	638	53.1	563	46.9	1201	51.3
Chinese	7	63.6	4	36.4	11	4.6	13	56.5	10	43.5	23	9.7	43	40.2	64	59.8	107	45.1
Cuban															1	100.0	1	100.0
Fijian	1	50.0	1	50.0	2	28.6	1	100.0			1	14.3	3	100.0			3	42.9
Filipino	53	88.3	7	11.7	60	6.6	65	69.9	28	30.1	93	10.3	296	62.4	178	37.6	474	52.3
Hawaiian	18	90.0	2	10.0	20	8.2	15	68.2	7	31.8	22	9.1	83	58.9	58	41.1	141	58.0
Japanese	51	82.3	11	17.7	62	5.6	45	57.0	34	43.0	79	7.1	261	62.0	160	38.0	421	37.7
Korean	4	66.7	2	33.3	6	4.5	9	75.0	3	25.0	12	9.1	34	47.2	38	52.8	72	54.5
Laotian							1	100.0			1	20.0	4	100.0			4	80.0
Mexican	5	100.0			5	15.2	2	100.0			2	6.1	8	42.1	11	57.9	19	57.6
Micronesian			1	100.0	1	12.5							3	50.0	3	50.0	6	75.0
Mixed	128	75.3	42	24.7	170	32.0	79	64.2	44	35.8	123	23.2	101	56.4	78	43.6	179	33.7
Okinawan	3	50.0	3	50.0	6	12.8	1	100.0			1	2.1	16	72.7	6	27.3	22	46.8
Part Hawaiian	169	77.5	49	22.5	218	17.0	154	62.9	91	37.1	245	19.1	378	62.4	228	37.6	606	47.3
Portuguese	29	80.6	7	19.4	36	9.0	21	65.6	11	34.4	32	8.0	113	67.7	54	32.3	167	41.5
Puerto Rican	12	75.0	4	25.0	16	10.7	12	52.2	11	47.8	23	15.4	48	70.6	20	29.4	68	45.6
Samoan	21	100.0			21	14.8	23	74.2	8	25.8	31	21.8	44	63.8	25	36.2	69	48.6
Tongan			1	100.0	1	100.0												
Vietnamese	1	100.0			1	4.8	3	100.0			3	14.3	6	54.5	5	45.5	11	52.4
Other Asian													1	16.7	5	83.3	6	85.7
Other Hispanic	7	77.8	2	22.2	9	21.4	3	100.0			3	7.1	7	41.2	10	58.8	17	40.5
Other Pac Isle	1	100.0			1	16.7	2	100.0			2	33.3			1	100.0	1	16.7
Other + Unknown	47	65.3	25	34.7	72	4.7	79	69.3	35	30.7	114	7.4	677	72.4	258	27.6	935	60.9
TOTAL	787	77.6	227	22.4	1014	10.8	685	65.0	369	35.0	1054	11.2	2827	60.9	1812	39.1	4639	49.4
Unduplicated Total	738	76.7	224	23.3	962	11.7	638	65.1	342	34.9	980	11.9	2372	59.7	1602	40.3	3974	48.3

* Numbers may not add up due to rounding.
a/ Percentage of row within age group.
b/ Percentage of row total.
c/ Percentage of males/females for this ethnic total.
d/ Percentage of column total.
e/ Less than .1 percent.

Mental Health Field Assessment and Statistical Information System

ETHNIC SUMMARY REPORT BY AGE AND SEX
DEMOGRAPHIC CHARACTERISTICS OF CLIENTS SERVED BY AGE AND SEX
TABLE 4*
(continued)
DIVISION

Period: 01/01/87 thru: 12/31/87

	40 --- 59						60+						TOTAL					
	MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL	%	MALE		FEMALE		TOTAL	
ETHNICITY	#	% a/	#	% a/	#	% b/	#	% a/	#	% a/	#	% b/	#	% c/	#	% c/	#	% d/
Alaskan Native			1	100.0	1	14.3	1	100.0			1	14.3	4	57.1	3	42.9	7	0.1
American Indian	2	40.0	3	60.0	5	12.2							20	48.8	21	51.2	41	0.4
Black	12	75.0	4	25.0	16	11.1	7	70.0	3	30.0	10	6.9	100	69.4	44	30.6	144	1.5
Cambodian	1	16.7	5	83.3	6	46.2			1		1	7.7	5	38.5	8	61.5	13	0.1
Caucasian	219	40.9	316	59.1	535	22.9	37	31.1	82	68.9	119	5.1	1238	52.9	1101	47.1	2339	24.9
Chinese	30	43.5	39	56.5	69	29.1	13	48.1	14	51.9	27	11.4	106	44.7	131	55.3	237	2.5
Cuban															1	100.0	1	e/
Fijian	1	100.0			1	14.3							6	85.7	1	14.3	7	0.1
Filipino	101	46.5	116	53.5	217	24.0	41	66.1	21	33.9	62	6.8	556	61.4	350	38.6	906	9.6
Hawaiian	22	50.0	22	50.0	44	18.1	5	31.3	11	68.8	16	6.6	143	58.8	100	41.2	243	2.6
Japanese	155	44.4	194	55.6	349	31.2	85	41.3	121	58.7	206	18.4	597	53.4	520	46.6	1117	11.9
Korean	18	56.3	14	43.8	32	24.2	4	40.0	6	60.0	10	7.6	69	52.3	63	47.7	132	1.4
Laotian													5	100.0			5	0.1
Mexican	6	85.7	1	14.3	7	21.2							21	63.6	12	36.4	33	0.4
Micronesian							1	100.0			1	12.5	4	50.0	4	50.0	8	0.1
Mixed	22	41.5	31	58.5	53	10.0	3	50.0	3	50.0	6	1.1	333	62.7	198	37.3	531	5.7
Okinawan	5	41.7	7	58.3	12	25.5	2	33.3	4	66.7	6	12.8	27	57.4	20	42.6	47	0.5
Part Hawaiian	81	45.5	97	54.5	178	13.9	13	39.4	20	60.6	33	2.6	795	62.1	485	37.9	1280	13.6
Portuguese	63	54.8	52	45.2	115	28.6	19	36.5	33	63.5	52	12.9	245	60.9	157	39.1	402	4.3
Puerto Rican	18	54.5	15	45.5	33	22.1	5	55.6	4	44.4	9	6.0	95	63.8	54	36.2	149	1.6
Samoan	12	60.0	8	40.0	20	14.1	1	100.0			1	0.7	101	71.1	41	28.9	142	1.5
Tongan															1	100.0	1	e/
Vietnamese	3	75.0	1	25.0	4	19.0			2	100.0	2	9.5	13	61.9	8	38.1	21	0.2
Othr Asian									1	100.0	1	14.3	1	14.3	6	85.7	7	0.1
Other Hispanic	4	40.0	6	60.0	10	23.8	1	33.3	2	66.7	3	7.1	22	52.4	20	47.6	42	0.4
Other Pac Isle			1	100.0	1	16.7			1	100.0	1	16.7	3	50.0	3	50.0	6	0.1
Other + Unknown	201	61.1	128	38.9	329	21.4	40	47.1	45	52.9	85	5.5	1044	68.0	491	32.0	1535	16.3
TOTAL	976	47.9	1061	52.1	2037	21.7	278	42.6	374	57.4	652	6.9	5553	59.1	3843	40.9	9396	
Unduplicated Total	28	48.1	892	51.9	1720	20.9	251	43.0	333	57.0	584	7.1	4827	58.7	3393	41.3	8220	

* Numbers may not add up due to rounding.
a/ Percentage of row within age group.
b/ Percentage of row total.
c/ Percentage of males/females for this ethnic total.
d/ Percentage of column total.
e/ Less than .1 percent.

Mental Health Field Assessment and Statistical Information System
ETHNIC SUMMARY REPORT
DEMOGRAPHIC CHARACTERISTICS OF CLIENTS ADMITTED, ACTIVE, AND DISCHARGED
TABLE 5*

DIVISION

Period: 01/01/87 thru 12/31/87

Ethnic Group	Carryover		New Admits		Readmits		Discharge		Net Total		Total	
	#	% a/	#	% a/	#	% a/	#	% b/	#	% c/	#	% c/
Alaskan Native	6	85.7	1	14.3			1	14.3	6	0.1	7	0.1
American Indian	17	41.5	20	48.8	4	9.8	15	36.6	26	0.4	41	0.4
Black	63	43.8	44	30.6	37	25.7	71	49.3	73	1.2	144	1.5
Cambodian	7	53.8	3	23.1	3	23.1	6	46.2	7	0.1	13	0.1
Caucasian	1114	47.6	720	30.7	508	21.7	1132	48.3	1210	20.3	2342	24.9
Chinese	118	49.8	53	22.4	66	27.8	90	38.0	147	2.5	237	2.5
Cuban			1	100.0			1	100.0			1	d/
Fijian	5	71.4	1	14.3	1	14.3	2	28.6	5	0.1	7	0.1
Filipino	509	56.2	192	21.2	205	22.6	321	35.4	585	9.8	906	9.6
Hawaiian	125	51.4	62	25.5	56	23.0	90	37.0	153	2.6	243	2.6
Japanese	785	70.3	139	12.4	193	17.3	301	26.9	816	13.7	1117	11.9
Korean	62	47.0	28	21.2	42	31.8	66	50.0	66	1.1	132	1.4
Laotian	2	40.0	3	60.0			3	60.0	2	d/	5	0.1
Mexican	14	42.4	9	27.3	10	30.3	17	51.5	16	0.3	33	0.4
Micronesian	5	62.5	2	25.0	1	12.5	1	12.5	7	0.1	8	0.1
Mixed	307	57.8	136	25.6	88	16.6	240	45.2	291	4.9	531	5.6
Okinawan	28	59.6	10	21.3	9	19.1	12	25.5	35	0.6	47	0.5
Part Hawaiian	682	53.2	279	21.8	320	25.0	550	42.9	731	12.3	1281	13.6
Portuguese	239	59.5	49	12.2	114	28.4	147	36.6	255	4.3	402	4.3
Puerto Rican	94	63.1	22	14.8	33	22.1	58	38.9	91	1.5	149	1.6
Samoan	55	38.7	39	27.5	48	33.8	71	50.0	71	1.2	142	1.5
Tongan					1	100.0			1	d/	1	d/
Vietnamese	10	47.6	6	28.6	5	23.8	9	42.9	12	0.2	21	0.2
Other Asian			2	28.6	5	71.4	3	42.9	4	0.1	7	0.1
Other Hispanic	19	45.2	15	35.7	8	19.0	14	33.3	28	0.5	42	0.4
Other Pac Isle	5	83.3	1	16.7			2	33.3	4	0.1	6	0.1
Other	1451	94.5	59	3.8	25	1.6	229	14.9	1306	22.0	1535	16.3
TOTAL	5722	60.9	1896	20.2	1782	19.0	3452	36.7	5948	100.0	9400	100.0
Unduplicated Total											8224	

* Numbers may not add up due to rounding.
a/ Percentage of row Carryover + New Admits + Readmits total.
b/ Percentage of row Net Total + Discharge.
c/ Percentage of Column.
d/ Less than .1 percent.
Net Total = Carryover + New Admits + Readmits - Discharge.
Total = Net Total + Discharge.

Mental Health Field Assessment and Statistical Information System

REFERRAL SOURCE OF ADMISSIONS (DUPLICATED COUNT)
TABLE 6*

DIVISION

Period: 01/01/87 thru 12/31/87

REFERRAL SOURCE	New Admissions		Readmissions		Total	
	#	% a/	#	% a/	#	b/
Community Programs						
Mental Health Center	43	21.50	157	78.50	200	57.97
Mental Health Community Program	26	50.00	26	50.00	52	15.07
Drug Treatment Program	3	60.00	2	40.00	5	1.45
Alcohol Treatment Program	13	72.22	5	27.78	18	5.22
CRSP	36	55.38	29	44.62	65	18.84
Nursing Home	1	20.00	4	80.00	5	1.45
Subtotal	122	35.36	223	64.64	345	9.38
Hospital						
General Hospital	145	33.11	293	66.89	438	57.71
Psychiatric Hospital	42	23.33	138	76.67	180	23.72
State Hospital	3	2.13	138	97.87	141	18.58
Subtotal	190	25.03	569	74.97	759	20.64
Private Professionals						
Psychiatric	62	43.97	79	56.03	141	50.72
Other Physician	55	73.33	20	26.67	75	26.98
Other Mental Health Professionals	41	74.55	14	25.45	55	19.78
Lawyer	4	57.14	3	42.86	7	2.52
Subtotal	162	58.27	116	41.73	278	7.56
Schools						
Public	232	81.12	54	18.88	286	54.79
Private	6	66.67	3	33.33	9	1.72
DOE Spec. Ed.	155	74.52	53	25.48	208	39.85
Community College	4	57.14	3	42.86	7	1.34
University	11	91.67	1	8.33	12	2.30
Subtotal	408	78.16	114	21.84	522	14.19
Individual						
Self	213	52.85	190	47.15	403	51.67
Family	172	68.53	79	31.47	251	32.18
Friend	102	87.93	14	12.07	116	14.87
Employer	4	66.67	2	33.33	6	0.77
Clergy	1	25.00	3	75.00	4	0.51
Subtotal	492	63.08	288	36.92	780	21.21

* Number may not add up due to rounding.
a/ Percentage of Row.
b/ Percentage of Column.

Mental Health Field Assessment and Statistical Information System

REFERRAL SOURCE OF ADMISSIONS (DUPLICATED COUNT)
TABLE 6*
(Continued)
DIVISION

Period: 01/01/87 thru 12/31/87

REFERRAL SOURCE	New Admissions		Readmissions		Total	
	#	% a/	#	% a/	#	% b/
Government Agencies						
Law Enforcement	24	52.17	22	47.83	46	6.95
Adult Court	65	25.19	193	74.81	258	38.97
Family Court	100	71.43	40	28.57	140	21.15
Correction Agency	12	35.29	22	64.71	34	5.14
Probation and Parole	34	53.97	29	46.03	63	9.52
V.A.	5	83.33	1	16.67	6	0.91
Developmental Disabilities	1	33.33	2	66.67	3	0.45
Vocational Rehabilitation	25	69.44	11	30.56	36	5.44
Public Welfare	55	73.33	20	26.67	75	11.33
Military	1	100.00			1	0.15
Subtotal	322	48.64	340	51.36	662	18.00
Out of State	2	100.00			2	0.05
Other	198	60.00	132	40.00	330	8.97
Total	1896	51.55	1782	48.45	3678	100.00

* Number may not add up due to rounding.
a/ Percentage of Row.
b/ Percentage of Column.

Mental Health Field Assessment and Statistical Information System

REASON FOR DISCHARGE
TABLE 7*

DIVISION
PERIOD: 01/01/87 thru 12/31/87

REASON FOR DISCHARGE	#	%
Treatment Completed	1377	39.9
Transferred To ADMH Program	166	4.8
Non-compliance w/ Program Rules	47	1.4
Against Clinical Advice	73	2.2
Refused Treatment	206	6.0
Patient Moved	379	11.0
Incarcerated/Hospitalized	312	9.0
No Service Within Last 60 Days	708	20.5
Disappeared--Whereabouts Unknown	92	2.7
Died	32	0.9
Other/Missing	60	1.7
TOTAL	3452	100.0

*Numbers may not add up due to rounding.

REFUGEE SCREENING PROJECT

NARRATIVE

The Refugee/Immigrant Health (RIH) Project is administered by the State of Hawaii Department of Health to provide for the coordination of health, tuberculosis, and dental screening for Hawaii's refugee arrivals. The Project also maintains a refugee health registry to monitor the health status of Hawaii's refugee population and to collect health data for state and federal information purposes. The RIH Project monitors and coordinates the health data on high-risk immigrant arrivals. Funding is provided by the State of Hawaii, and by the federal government through the Center for Disease Control.

Hawaii's total refugee population is an estimated 7,500 c/. Approximately 98% of this total have come from Southeast Asia (Vietnam, Laos, and Cambodia). Refugee arrivals in Fiscal Year 1987 included 253 new arrivals and 11 refugee migrants from other states still needing health assessment.

Of the 264 refugees needing health assessment, 96% received health screening. Ninety-seven percent (97%) of those screened had one or more notable health problems, including the following ranked by noted incidence:

Dental disease	92%
Tuberculosis (positive skin test)	56%
Parasites	43%
Eye	30%
Anemia	29%
Skin	19%
Musculoskeletal	18%
Genito-urinary	15%
Heart/hypertension	11%
Hepatitis B	10%

The RIH Project emphasizes the coordination of refugee health care screening and referral services between the Department of Health and other agencies, both public and private, such as voluntary resettlement programs, case management services, and private medical and dental providers.

c/ - Estimated number of Southeast Asian refugees living in Hawaii totals 7,500 as of September, 1987 (source: Office of Refugee Resettlement, September, 1987).

TABLE 1

DEMOGRAPHIC BREAKDOWN OF REFUGEES ENTERING HAWAII (Primary Arrivals[a/])

July 1, 1986 - June 30, 1987

AGE (years)	Country of Origin								TOTAL	
	VIETNAM		LAOS		CAMBODIA		OTHER[b/]			
	Sex		Sex		Sex		Sex			
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	Number	Rounded off Percent
Under 1 year	0	2	0	0	0	0	0	0	2	1%
1 - 4	7	5	3	9	0	0	1	1	26	10%
5 - 9	10	8	11	7	0	0	0	0	36	14%
10 - 14	5	6	8	7	0	0	0	0	26	10%
15 - 19	10	9	7	8	0	0	0	0	34	13%
20 - 34	27	22	8	8	0	0	2	2	69	27%
35 - 44	3	4	5	4	0	0	0	0	16	6%
45 - 64	8	11	7	3	0	0	0	0	29	12%
65 or Older	4	7	0	4	0	0	2	1	18	7%
TOTAL Number	74	74	49	50	0	0	3	3	253	
TOTAL Percent	29%	29%	20%	20%	0	0	1%	1%		100%

a/ - Primary arrivals refers to U.S. arrival via Hawaii; does not include secondary refugee arrivals from other states. Hawaii average monthly refugee arrivals for FY 1987 was 21.1 persons.

b/ - Primarily Eastern European refugees.

WAIMANO
TRAINING SCHOOL
AND
HOSPITAL DIVISION

WAIMANO TRAINING SCHOOL AND HOSPITAL

SUMMARY

The population of Waimano continues to decline over the years, reflecting the emphasis on deinstitutionalization. Community placements since 1983 have been primarily to the Home & Community Based and the Community ICF-MR programs. These programs are designed to provide more support services for clients. As lower functioning residents are placed in the community, their adaptation to the new environment requires more comprehensive and intense case management, day health programs, habilitation services and respite care.

The outlook for Waimano's resident population will continue to show major declines over the next three to five years. Actual placements of residents will depend on the successful development of community programs by private providers.

Table 1 shows a population decrease of 28 residents from 288 on July 1, 1986 to 260 on June 30, 1987. There were no new admissions.

Table 2 shows the category of classification remain about the same as in previous years, with the predominance of residents in the "Profound" category.

TABLE 1
WAIMANO TRAINING SCHOOL & HOSPITAL
STATISTICAL MOVEMENT OF PATIENTS BY FISCAL YEAR
STATE OF HAWAII: FISCAL YEAR 1986-87

Waimano Population	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Institution								
Patients in residence at start	446	423	397	385	375	348	328	288
Patients added during the year	65	63	53	31	31	12	1	4
Admissions during the year	12	7	6	10	2	2	-	-
Returns from community placement	53	56	47	21	29	10	1	4
Patients removed from hospital during the year	88	89	65	41	58	32	41	32
Direct discharge	3	2	-	2	-	-	1	-
Deaths in hospital	6	7	8	5	4	7	3	8
Community placements								
Home & Comm. Based Svcs.	...	...	...	...	16	16	13	10
Small ICF-MR	...	...	...	...	...	...	20	7
Other comm. placements	...	80	57	34	38	9	4	7
Patients in residence at end of year	423	397	385	375	348	328	288	260

TABLE 2
RESIDENT POPULATION, WAIMANO, JUNE 30
DISTRIBUTION BY YEAR AND MEASURED INTELLIGENCE
STATE OF HAWAII: FISCAL YEAR 1986-87

	Resident Population on June 30							
	1980	1981	1982	1983	1984	1985	1986	1987
Total	423	397	385	375	348	328	288	260
I. Mild Educable	9	10	13	12	8	7	6	7
II. Moderate Trainable	30	29	26	26	25	23	21	20
III. Severe	53	53	53	59	58	51	40	32
IV. Profound	328	305	293	278	257	247	221	201
Borderline	2	-	-	-	-	-	-	-
Undetermined Intelligence	1	-	-	-	-	-	-	-